

NEWSLETTER

The American Astronomical Society • 2000 Florida Avenue, NW, Suite 400 • Washington, DC 20009-1231 • 202-328-2010 • aas@aas.org



ROCHESTER HOSTS AAS SUMMER MEETING

LOC members at the **University of Rochester (UR)**, and the **Rochester Institute of Technology (RIT)** are delighted to welcome the 196th Meeting of the AAS to Rochester, NY from 4-8 June 2000. The third largest urban area in New York,

Rochester is home to a variety of industries and research centers that support astronomy — from those at UR and RIT that develop detector arrays for space missions and for ground-based astronomy; to the **Eastman Kodak Company**, that developed the mirror for Chandra and Keck telescopes; to the **Richardson Grating Laboratory**, that produces ultra-large gratings, such as those for the Subaru Telescope; and to UR's **Laboratory for Laser Energetics (LLE)**, working on intense laser laboratory astrophysics.

The history of astronomy and astronomy education is well represented in Rochester at the **Strasburgh Planetarium (Rochester Museum and Science Center)** and the **George Eastman House**, a museum specializing in the development of the camera, optics and imaging techniques.

As part of the AAS meeting program, tours are planned of UR's Laboratory for Laser Energetics (<http://www.lle.rochester.edu>) and the Richardson Grating Lab (<http://www.gratinglab.com>). A reception and tour of the beautiful George Eastman House for 150 participants (sponsored by Kodak, the University of Rochester and Rochester Institute of Technology) will be held

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PRESIDENT'S COLUMN

Bob Gehrz, President, gehrz@ast1.spa.umn.edu

The Budget is Here: **Start_Early@Home**

On February 7, President Clinton submitted a FY2001 budget request which includes dramatic increases for the science funding agencies such as NASA and NSF. Well before this, at Caltech, he emphasized the need to support all scientific research and the interconnectedness of the physical and life sciences. Congress also appears to be acknowledging the importance of basic science research.

This year, we have a chance, if we get started now, to support proactively a substantial increase in science budgets rather than be forced to react to a potential disaster created by partisan politics, as we were last year. Luckily, science is a non-partisan issue and is likely to enjoy continued support no matter who

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wins the coming Presidential election.

Even in an improved political climate, however, *without the active involvement of scientists*, no hope of Congressional support for science can be realized. A silent community commands no attention from Congress.

By far the best way to influence a budget outcome is to visit the home district offices of congressional representatives. Members of the House and Senate have offices in their home districts, usually in the major metropolitan areas within the district. Some have several offices and split their time between them when they are not in Washington. In the home district, representatives have more time for visitors, visiting and for talking.

Although there is no single recipe for establishing a good home office relationship, the following suggestions made during a panel discussion sponsored by the AAS Committee on Public Policy (CAPP) at the Atlanta AAS meeting may be useful:

- Call the home office and get to know some of the local staff. Be aware of the Congressional schedule (look at <http://www.house.gov>). Make sure your member knows you are a constituent, that you are an astronomer and you are interested in your member's position on astronomy and space science issues;
- Offer to serve as an information resource for any issues that come up pertaining to your area of expertise. Information is a valuable resource for members of Congress; if they have an easy way of learning, they will take advantage of it;

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PUBLICATIONS NEWS

Free Access to Journals Older than Three Years; Page Charges Reduced

*Bruce Elmegreen, Chair, Publications Board and
Robert W. Milkey, Executive Officer, AAS*

At the January meeting, the AAS Council approved the Publications Board proposal, effective immediately, to make freely available on the Web all AAS journals older than three years from their cover dates. This applies to the *Astrophysical Journal* Parts I, II, and *Supplements*, and to the *Astronomical Journal*, whether accessed through the ADS or directly through the University of Chicago Press. While the access to these older journals is free to all, the published AAS policy regarding rights of use still applies to all material contained in AAS journals.

The Publications Board is also happy to announce that, effective 1 January 2000, page charges for electronically submitted manuscripts to *ApJ* Part I and *ApJ Supplements* are reduced. Page charges for electronic submissions to *ApJ*, *ApJS*, and *AJ* are now all \$115. Page charges for the *ApJ Letters* remain at \$155 (only electronic manuscripts are accepted). Page charges for paper submissions to *ApJ*, *ApJS* and *AJ* remain at \$130. The new rates are printed on page 8 of the *2000 Membership Directory*.

New ApJ Homepage

Julie Steffen, Astronomy Pub. Manager, U. Chicago Press

Please go to <http://www.journals.uchicago.edu/ApJ/> and explore the new home of the *ApJ*. You will see a new look, improved functionality and enhanced content. Future updates to this site will include new "Yellow Pages" and Tentative Tables of Contents. Please send us your comments by email.

LETTERS TO THE EDITOR

Letters to the Editor on current issues of importance to astronomers are welcomed. Letters must be signed and should not exceed 250 words. For inclusion in the June 2000 issue, letters must be received by Jeff Linsky, Associate Editor, Letters, by **1 April 2000**. You may contact Jeff Linsky by email jlinsky@jila.colorado.edu, phone 303-492-7838, or FAX 303-492-5235. The Associate Editor may edit letters, but will consult with authors before doing so. Letters will be published at the discretion of the Editors.

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POSTMASTER: Send address changes to AAS, 2000 Florida Avenue, NW, Suite 400, Washington, DC 20009-1231.

Items of general interest to be considered for publication in the *AAS Newsletter* should be sent to lscholz@aas.org. Appropriate pictures are welcomed. The remaining 2000 deadlines are: **14 April** (for June); **16 June** (for August); **25 August** (for October); and **13 October** (for December).

Items submitted for the *AAS Newsletter* are not automatically included in the AAS Electronic Announcements or vice versa. Submit electronic announcement items to ela@aas.org.

AAS Publications Coordinator: Judy Johnson
Editor: Robert W. Milkey
Associate Editor: Lynn Scholz
Associate Editor, Letters: Jeffrey Linsky, U. Colorado

ROCHESTER MEETING

Continued from page 1

Tuesday evening, 6 June from 6–8:00pm (<http://www.eastman.org>). Adam Frank, UR faculty member, will give a public talk on Monday evening, 5 June. The excellent brass quintet, **Prism**, (<http://www.wizware.com/prism/frame.htm>) of the UR's Eastman School of Music will entertain at the AAS banquet on Wednesday evening, 7 June.

There's plenty to do and see in and around Rochester beyond the astronomical activities planned for the meeting. An hour's drive east of Rochester, in Seneca Falls, NY is the **home of Elizabeth Cady Stanton**, where, in 1848, the US women's rights movement officially began with the First Women's Rights Convention, which led, 72 years later, to the ratification of the 19th Amendment to the US Constitution. Also in Seneca Falls is the **Women's Hall of Fame** and the **National Women's Rights Park**. The **Susan B. Anthony House**, Rochester, is listed on the National Register of Historic Places and is open to the public. **Niagara Falls** is an hour and a half to the west of Rochester. **Letchworth State Park**, called the "Grand Canyon of the East," is an hour south. Water sports and wine-tasting tours abound in the nearby **Finger Lakes** (<http://www.fingerlakes.net/flp/flpwine/flpwineold.html>).

Close to Rochester's downtown area and within a few miles of the Convention Center at the **Centers at High Falls**, an entertainment mecca, is **Brown's Race Historic District** where there is a replica water raceway, early 19th century industrial buildings, an excavated forge site and a massive waterwheel. Take well-documented walking tours around the museum trail and neighborhood of the arts, as well as Rochester's historic residential neighborhoods. Walking, public transportation, or the free EZ Rider bus (evenings after 5:30pm; Sundays excluded) make it easy to visit these areas. For all there is to see and do, visit the web sites, <http://www.visitrochester.com> and <http://www.rochgetaway.com>, which give an overview of the area, and feature area museums – e.g. UR's Memorial Art Gallery, parks, sports, entertainment, history and the like. Bring the whole family for a week of fun and exploration bound to suit everyone's tastes.

Meetings In General

Video Projectors

Starting with the June 2000 Meeting in Rochester, the AAS will provide LCD/video projectors for AAS invited speakers or for invited speakers in special or topical sessions *only* when requested at least two weeks before the start of a meeting. These projectors will *not* be available for contributed papers. Place your order with Diana Alexander, diana@aas.org.

Hotel Overbooking

It is common practice among hotels in major convention cities to overbook rooms based upon standard no-show rates. When more people than expected register, the hotel makes every effort to place them in nearby accommodations, pays for their room, any cab fares, and provides accommodations the next day. It is unfortunate that several Atlanta meeting participants were inconvenienced by overbooking. This rarely happens at AAS meetings and hopefully will not happen again anytime soon.

COUNCIL ACTIONS

The following actions were among the most noteworthy taken by the AAS Council at its 195th Meeting in Atlanta, Georgia, on 11 January 2000:

- Approved the Executive Committee actions taken between 30 May 1999 and 11 January 2000;
- Voted to provide, from the special projects fund, \$6,000 to the Committee on Astronomy and Public Policy (CAPP) for support of Congressional Visits Day;
- Authorized setting up a checking account in Tucson for use by the *Astrophysical Journal* Editorial Office;
- Adopted the report of the Publications Board;
- Adopted a resolution: "Resolved, the Executive Officer is authorized to instruct the University of Chicago Press to reconfigure the access control on AAS journal articles to discontinue the requirement that the viewer hold a subscription to the journal three years from the cover date of the issue in which the article originally appeared" (see accompanying article, page 2);
- Approved the Astronomy Education Board (AEB) open letter on the teaching of evolution in astronomy, with the understanding that certain changes in wording which had been discussed would be included at the discretion of the President;
- Approved AAS co-sponsorship of "Cosmos in the Classroom 2," a meeting on astronomy education planned by the Astronomical Society of the Pacific (ASP) in the latter half of June 2000;
- Approved a change in the Solar Physics Division Bylaws regarding the frequency of awarding the Hale Prize;
- Approved publication of the revised AAS Bylaws in the March 2000 *AAS Newsletter*, and thence take the revised Bylaws to a vote at the Council's Rochester meeting in June 2000, taking into account the membership's comments (see accompanying article and annotated text, pages 4-11);
- Approved the Committee on Appointment's recommendations to fill certain AAS Prize committee vacancies;
- Accepted the nominees for AAS prizes for 2000, as recommended by the different prize committees;
- Voted to provide compensation or other support for each *Astrophysical Journal* Scientific Editor in accordance with the plan presented by the Editor-in-Chief, R. C. Kennicutt, Jr.

CORRECTIONS

Hanany's Research

We regret inaccuracies in the description of Shaul Hanany's research in the article on the 1999 Chretien Grants (*AAS Newsletter*, December 1999, No. 98). Hanany is in charge of the optical design, production and integration of the telescope for the balloon-borne Archeops experiment. Archeops data will be used to develop and test techniques and algorithms that may prove useful for Planck. However, the Planck data set is expected to be much larger and of higher quality.

Obituary for Barry Lasker

The obituary for Barry Lasker published in the *Bulletin of the American Astronomical Society*, Vol. 31, No. 5, was written by Brian McLean and Steve Beckwith, both of the Space Science Telescope Institute.

AAS ELECTION RESULTS

The results of the latest AAS election are presented below:

Amendments to the AAS Constitution: Approved

Vice-President	Robert E. Williams
Education Officer	R. Bruce Partridge
Councilors	Charles J. Lada Dimitri M. Mihalas Ellen G. Zweibel
USNC-IAU	Ramesh Narayan
Nominating Committee	Blair D. Savage Donna Weistrop

The Society thanks all who agreed to stand for election, for their commitment and service to the community. Congratulations to the winners. New Officers begin their terms after the Annual Business Meeting at the June 2000 Rochester Meeting.

Secretary's Corner

Arlo U. Landolt, aassec@aes.org

Vacancies for several AAS committees will be filled by Council at its meeting in Rochester in June 2000. Current committee members are listed under AAS Governance on the AAS homepage, <http://www.aas.org>. Committees which have vacancies, together with the number of vacancies on each (in parenthesis immediately following), are:

- Astronomy Education Board (2)
- Committee on Employment (3)
- Investment Advisory Committee (1)
- Committee on Light Pollution, Radio Interference and Space Debris (4)
- Committee on Status of Minorities (2)
- Committee on Status of Women in Astronomy (3)

AAS Members may themselves volunteer, or suggest other Members for one of the vacancies. To be most useful to the Committee on Appointments, such input **must** include the date of the PhD, as well as a few sentences conveying to the Committee the background and area of expertise of the named individual. This sort of information is vitally important because the Committee on Appointments does not know everyone. The idea is to have both quality and breadth across the AAS committee structure.

Input must be received in the Office of the Secretary no later than **28 April 2000**. Submit suggestions to Arlo U. Landolt, AAS Secretary, by email or at the Department of Physics and Astronomy, Louisiana State University, Baton Rouge, LA 70803-4001, Tel: 225-388-1160, Fax: 225-334-1098.

Member Deaths Noted

Since the December *Newsletter*, the Society is saddened to learn of the deaths of the following members:

Valentin Boriakoff
Clinton Constant
Douglas Duke
Freeman Miller

Revisions to the AAS Bylaws

Introduction

The Council of the AAS has reviewed the Society's Bylaws and recommends a series of changes. These changes will be considered for adoption at the June meeting of the Council. In accord with the Bylaws, we are notifying the members of these pending revisions and soliciting comments on them. Comments may be directed to the Society's Secretary or Executive Officer, or may be submitted through the web page for comments to the Council. All comments received will be considered when the Council takes up these revisions at its meeting in June 2000. The present Bylaws text may be found on pages 21 through 25 of the *AAS Directory* for 2000.

Our priorities have been to remove any ambiguities and to alter the Bylaws to reflect current practices. A copy of the Bylaws with our recommended changes incorporated is attached. Each subsection that has been changed is explained with a footnote, unless the change is purely editorial, *i.e.* correction of capitalization, punctuation or spelling.

We direct your attention to the following key issues, the relevant footnote numbers are in {}:

- Throughout we have clarified the references to "member" to distinguish between the (Full) Member of the Society and the generic member of the Society. This is extremely important with respect to the specific privileges. Only Members may hold office, serve on the nominating committee, or chair committees of the society. {2, 5}
- We have inserted a section to recognize the current practice with respect to Affiliates whether in the Divisions or in the Society of Physics Students. These are not members, cannot vote in AAS elections, and have only those privileges specifically extended them by Council. {3}
- We have clarified the Emeritus status so that Associate Members who meet the requirements for emeritus can be so designated. The rights and privileges of members in the emeritus status would remain those of the class of membership held at the time of transition to emeritus. {6}
- We have clarified the specific right of the Council to fill any vacancy among the Officers or Councilors for the remainder of the unexpired term. This provides consistency with the constitutional revision under consideration. {7, 8, 11}
- At the recommendation of the lawyers, we have included a specific definition of the notice period required for the convening of a Council meeting. The DC law is ambiguous and having specificity in the Bylaws avoids any possible challenge. The lawyers advise that the 30 day requirement meets the "reasonable" qualification of the law. {9}
- We removed the qualification "scientific" from the phrase "*The Council may establish rules for the presentation of scientific papers at meetings of the Society.*" This is to permit, at the discretion of the Council and the program committee, the presentation of papers on topics not strictly construed as "scientific." {14}
- The definition of the powers of the Executive Committee has been simplified to a statement that it can act for the Council between meetings of the Council. Without such a clear-cut delegation, the authority of the Executive Committee is ambiguous from a legal standpoint, as was pointed out by our lawyers. {15}
- We have inserted specific language addressing the ability of affiliates to serve as Divisional Officers or Committee members. {17}
- We recommend increasing the difficulty of temporarily suspending the Bylaws by increasing the number of votes required. {21}

Bylaws of the American Astronomical Society Proposed Revision 2000

ARTICLE I. MEMBERSHIP¹

1. Classes of Membership²

a. Individual membership in the American Astronomical Society shall be classified as follows: Members (designated throughout with capital M),

Associate Members, Junior Members, Honorary Members and Patrons.

b. Any person deemed capable of preparing an acceptable paper upon some subject of astronomy or related branch of science may be elected a Member.

c. Any person seriously interested in the advancement of astronomy or related fields may be elected an Associate Member if he or she is 28 years of age or older, or a Junior Member if he or she is under 28 years of age. Full time students pursuing a degree in astronomy or a

¹There is no change in the classes of membership proposed in this revision.

²The use of the capital "M" has been made consistent throughout the document.

e. Any person who has rendered conspicuous service to astronomy other than through scientific contributions may be elected a Patron of the Society.

f. Organizational memberships are open to corporations and other entities desirous of encouraging the work of the Society.

g.³ The Council and each Division may permit certain individuals who have an interest that is allied with those represented by the members of the AAS or its Divisions to become Affiliate members. These individuals may participate in the activities of the Society or the relevant Division, as appropriate, but may not vote, hold office, or serve on AAS Committees. The Council or the appropriate Division shall establish the qualifications, dues, and privileges of Affiliate membership.

2. Method of election of Individual Members

a. Applicants for Member, Associate Member or Junior Member may at any time be elected by the Council or its designated representative after nomination by two Members. Unless he or she furnishes proof of full time student status, any Junior Member reaching 28 years of age automatically becomes an Associate Member at the beginning of the subsequent year.

b. Junior or Associate Members wishing to upgrade to Member must be nominated by two Members.

c. Nominations for Honorary Member must be signed by no fewer than five Members. The Council may elect no more than one Honorary Member per year.

d. Patrons of the Society must be elected by the Council. Patrons may be elected posthumously.⁴

3. Dues and Privileges of Membership⁵

The Council will determine the dues for each class of member. Junior Member and Emeritus Member dues will be set at a lower rate than the rate set for Member and Associate Member dues. Changes in the dues will be announced at the annual business meeting of the Society. Honorary Members and Patrons pay no dues. All Members, Associate Members, Junior Members, Honorary Members and Patrons shall have the right to attend meetings of members and to vote in the annual election and to vote on amendments to the Constitution and to receive such publications as the Council may

³This section has been added to recognize our current practice with respect to Divisional Affiliate Members.

⁴A separate section has been added to define "Patron". It has been a long-standing practice of the Society to permit posthumous election of Patrons.

⁵This section has been modified to clarify the rights of membership, consistent with the practice of the Society over the past 20 years.

authorize. Only Members have the right to hold office or to chair committees of the Society.

4. Emeritus Status⁶

Any member who has retired from active work and whose years of membership in the Society total at least ten (10), shall be eligible to be transferred to the Emeritus status in the class of membership held at the time of that request. Dues for members in Emeritus status shall be set at 50% of the Council-determined dues for active members, rounded up to the nearest dollar. The implementation of dues for those members in Emeritus status shall go into force for any member changing to Emeritus status after 1 January 1998. The Council shall determine any additional rights or privileges of Emeriti members. Requests for transfer to Emeritus status shall be submitted to the Executive Office of the Society for approval.

5. Termination of Membership

Members of any class may resign by notifying the Executive Office or the Secretary in writing. Membership in the Society may be suspended or terminated by vote of the Council for conduct adjudged to be detrimental to the interests of the Society. Failure to pay dues within the time set by the Council shall be deemed sufficient cause for suspension. In exceptional cases of financial difficulty, membership dues may be waived or reduced for one year upon individual request to the Secretary or Executive Officer.

6. Organizational Membership

The Council may establish classes of membership for corporations, publishers and non-profit organizations. The Council shall set the qualifications, dues and application procedure for each class of organizational membership in the Society. The Council also shall establish the benefits which accrue to organizational members.

ARTICLE II. OFFICERS OF THE SOCIETY

1. Enumeration of Officers

The elected officers of the American Astronomical Society shall be President, President-Elect, or in alternate years, Past-President, three Vice-Presidents, Secretary, Treasurer, Education Officer, and Chair of the Publications Board. The Council shall appoint an Executive Officer.

⁶Emeritus status is clarified so that a member in any class may become emeritus if the requirements of this section are met. The rights and privileges of the member's class of membership carry forward.

2. Terms of Office

a. Upon his or her election, the President shall serve one (1) year as President-Elect, two (2) years as President and one (1) year as Past-President.

b. Vice-Presidents serve for three (3) years. One is to be elected each year.

c. The President and Vice-Presidents are not eligible for immediate reelection.

d. The Treasurer, Secretary and Education Officer serve for three years and may succeed themselves twice for a total of nine (9) years.

e. The Chair of the Publications Board serves for three (3) years, and is not eligible for immediate reelection.

f. The term of the Executive Officer shall be three(3) years.

g. The terms of office of the elected officers shall formally commence at the close of the annual business meeting following the election.

3. Vacancies

a. If the office of President becomes vacant, the President-Elect shall act as President for the remainder of the unexpired term and shall then continue to serve as President for the term for which he or she originally was elected. If no President-Elect exists, the senior Vice-President shall act as President until the next annual business meeting at which time a new President-Elect will take office and serve as President for three years.

b.⁷ If the Treasurer, Secretary or Education Officer no longer can serve, the Council may fill the office for the remainder of the unexpired term.

c.⁸ In the event of a situation not specifically covered in these Bylaws, the Council has the power, by a vote of the majority of the Council, to fill any vacancy which may arise among the Officers. Such an appointment shall be limited to the unexpired term of the vacancy being filled.

4. Duties of Officers

a. The President shall preside over Council meetings and Society business meetings and shall perform other duties usually associated with this office.

b. The Vice-Presidents, as representatives of the Council, will have the responsibility for the overall

scientific content of the major meetings of the Society, including review speakers and special sessions, and to support and advise the Executive Officer in maintaining the scientific quality of the program.

c. The Secretary shall be responsible for keeping an accurate record of all meetings of the Council and for preparing the official minutes of the Council meetings. He or she shall give, or cause to be given, all notices in accordance with these Bylaws or as required by law and in general, shall perform all duties customary to the office of Secretary.

d. The Treasurer shall be responsible for the financial affairs of the Society. He or she shall perform all duties customary to that office, shall be responsible for all corporate funds and securities, and shall keep, or cause to be kept, full and accurate accounts of receipts and disbursements in the books of the corporation. The Treasurer shall deposit or invest, or cause to be deposited or invested, all monies or other valuable effects in the name of the Society in such depositories or investments as shall be selected by the Council or its authorized representatives. The Treasurer shall render annually to the Council, or when the Council so requires, an account of the financial condition of the Society. He or she shall secure audits of the financial operations of the Society as needed.

e. The Education Officer, under the direction of the Council, shall be responsible for the oversight of all educational activities of the Society. The Education Officer shall chair the Council-appointed committee which will provide advice to the Council regarding the education programs of the AAS.

f. The Executive Officer shall serve as the Chief Executive Officer of the Society, and subject to the control of the Council, shall perform the duties customary to that office and shall manage, supervise and control the affairs of the Society in accordance with the policies and directives approved by the Council.

g. In addition to these tasks, the officers shall perform other tasks as enumerated elsewhere in the Bylaws or as assigned by the Council.

5. Eligibility for Holding Office

All Members of the Society are eligible to become Officers or Councilors. In addition to being a Member, the President-Elect also must previously have served as an elected Officer or Councilor. Junior and Associate Members are not eligible to be Officers or Councilors. In addition to being a Member, the Chair of the Publications Board ordinarily will have served previously or be serving as a member of the Publications Board. Associate Members are eligible to serve on Society committees; they are not eligible to chair Society committees. Junior Members are not eligible to chair or to serve on Society committees.

⁷This provision is changed to specify the Council's authority to fill a vacancy only for the remainder of the unexpired term, after which a regular election would be required. Specifically, when the Council fills a vacancy, the appointee does not begin a new three-year term.

⁸The reasoning here is the same as in the previous note.

ARTICLE III. COUNCIL

1. Powers and Responsibilities

The Council shall be the governing body of the Society and shall manage, direct and control the affairs and property of the Society. The Council shall, within the limits of the Bylaws, determine the policies of the Society and changes therein. It shall actively prosecute the Society's purposes and shall have discretion in the disbursement of the Society's funds. It may adopt such rules and regulations for the conduct of its business as it deems advisable, and may, in the execution of its powers, appoint such agents as it may consider necessary.

2. Composition of the Council

The Council shall consist of the elected officers of the Society (President, President-Elect or Past-President, Vice-Presidents, Secretary, Treasurer and Education Officer), the Executive Officer, the Chair of the Publications Board, and nine Councilors, three of whom are elected from among the Members of the Society each year to serve for a period of three years. The elected Councilors shall not be eligible for immediate reelection.

3. Organization of the Council

a. The President shall serve as Chairperson of the Council. In his or her absence the President-Elect, or in the case of the latter's absence one of the Vice-Presidents, in order of seniority, shall serve as chair.

b. The Secretary of the Society will act as secretary of the Council. In his or her absence a substitute for that meeting will be appointed by the Executive Committee.

4. Meetings of the Council

a. The Council shall meet at least once each year. The annual meeting of the Council shall be held not less than one and no more than thirty (30) days prior to the annual business meeting of the Society.

b. Additional meetings of the Council may be held at such other times as the President may decide.

c. A request in writing to the President from four members of the Council shall render the convocation of the Council obligatory.

d. At any meeting of the Council, one-half of the entire membership of the Council shall constitute a quorum and, except as otherwise provided by these Bylaws, a majority of such a quorum shall decide any question that may come before the meeting.

e.⁹ The Secretary or President shall provide to Council notice by mail of any Council meeting no less than thirty (30) days before the date of the meeting. This notice shall

⁹This new item defines the required notice for the convening of a meeting of the Council and includes a requirement that an agenda be provided in advance of the meeting.

include at a minimum the time and location of the meeting. An agenda containing at least the principle items of business shall be transmitted to Council Members not less than ten (10) days prior to the Council meeting.

f.¹⁰ In the interim between regularly scheduled meetings the Council may meet and vote through a telephonic conference, provided all notice requirements for a meeting have been satisfied. In such a conference call each member must be able to speak and each must be able to hear all other members participating in the call. A two-thirds (2/3) majority vote of the total Council membership is required to decide the question.

g.¹¹ The Council has the power, by a vote of the majority of the Council, to fill any vacancy which may arise among the elected Councilors. This appointment shall be limited to the unexpired term of the vacancy being filled.

ARTICLE IV. ELECTION OF OFFICERS AND COUNCILORS

1. Nominations

The slate of candidates for Officers and Councilors shall be prepared by the Nominating Committee. At least two candidates shall be proposed by the Nominating Committee for each vacancy for President, Vice-President and Councilor. For the position of Chair of the Publications Board, the Nominating Committee, in consultation with the Executive Committee¹² and the Publications Board, shall propose one or two candidates. For the position of Secretary, Treasurer and Education Officer, the Nominating Committee, in consultation with the Executive Committee of the Society, shall propose one candidate for each vacancy. Members of the Nominating Committee are ineligible for nomination to office.

¹⁰This provision has been revised to specifically allow for telephonic meetings. The requirement for a two-thirds majority of the total Council (not just those participating) has been retained. The D.C. non-profit corporations act does not permit the Council to act without a meeting unless each and every member consents in writing to waive the requirement for a meeting and to act. Mail and e-mail votes of the council are not permitted.

¹¹This new provision incorporates the current practice of having the Council fill any vacancy among the Councilors, but only for the remainder of the unexpired term.

¹²The nominating committee is required to consult with the Executive Committee instead of the entire Council in selecting the nominee for Chair of the Publications Board. This makes the process identical to that used in nominating Treasurer, Secretary, and Education Officer.

2. Write-in Nominations

The proposed slate of candidates must be announced to the members of the Society, along with a deadline not less than forty-five (45) days after the mailing of the announcement before which additional candidates may be proposed. Additional nominations may be made in writing and must be signed by at least thirty (30) voting Members of the Society. No Member may sign for more than one additional nominee per year.

3. Balloting

In order to be included on the final slate of candidates, the candidate must supply written consent that he or she is willing to serve, if elected. The ballot shall be mailed to all individual members no less than forty-five (45) days before the deadline for counting. No provision for write-in candidates will be made on the ballot.

4. Nominating and Voting Procedure

The Council shall determine such additional requirements and procedures as needed and shall assign the responsibilities for preparing the ballot and recording the votes. All questions of procedure and interpretation shall be resolved by the Council.

ARTICLE V. MEETINGS OF THE SOCIETY

1. Meetings

There shall be an annual meeting and such other meetings of the Society as the Council shall designate. The Council shall determine the time and place of the annual meeting of the Society, and shall provide for an annual business meeting, which shall be held in conjunction with a scientific meeting of the Society¹³, at which the President, Treasurer and other officers at the discretion of the Council, shall report to the Membership.

2. Announcements of Meetings

An announcement of each scientific meeting shall be mailed to all members not less than twenty-one (21) days before the meeting. The announcement of the annual business meeting shall be included in the announcement of the scientific meeting at which it is to be held.

3. Agenda and Program

The Council shall have charge of the agenda of business meetings and the program of scientific meetings. The Council may establish rules for the presentation of papers¹⁴ at meetings of the Society.

¹³We have added the requirement that the Annual Business Meeting be held at one of the scientific meetings of the society.

¹⁴The word "scientific" has been removed from
(continued...)

4. Participation in Meetings

All members may attend scientific meetings of the Society. Organizational members of the Society may participate in the program of scientific meetings in such ways as established by the Council. They also may provide exhibits judged to be of interest to other members of the Society. The regulations and charges for such exhibits shall be set by the Council or its designated representative.

ARTICLE VI. COMMITTEES

1. The Nominating Committee

a. The Nominating Committee shall consist of five Members of the Society. All Members are eligible to serve except those who are voting members of the Council. Associate Members and Junior Members are not eligible.

b. Each member of the Nominating Committee shall serve three years and shall not be eligible for immediate reelection to the Nominating Committee. The terms of the five members shall be staggered so that no more than two Members are elected in any one year.

c. Candidates for membership on the Nominating Committee shall be nominated from the floor of the annual business meeting by a Member. At least two names shall be proposed for each vacancy.

d. The proposed slate of candidates for the Nominating Committee must be announced to the members of the Society along with a deadline not less than forty-five (45) days after the mailing of the announcement before which additional candidates may be proposed. Additional nominations may be made in writing to the Secretary and must be signed by at least five (5) Members of the Society. No Member may sign for more than one additional nominee per year.

e. In order to be included on the final slate of candidates, the candidate must supply written consent that he or she is willing to serve. The ballot shall be mailed to all members no less than forty-five (45) days before the deadline for counting. No provision for write-in candidates will be made on the ballot.

f. The Council shall determine such additional requirements and procedures as are needed and shall assign the responsibilities for preparing the ballot and recording the votes. All questions of procedure and interpretation shall be resolved by the Council.

¹⁴(...continued)

this specification, to allow for the presentation of papers on topics other than scientific topics, at the discretion of the Council or its Committee on Meetings.

g. Within two weeks after the election, the Secretary shall announce to all old and new members of the Nominating Committee its new composition. The term of office of new members starts and the term of office of outgoing members terminates on the date of this announcement.

h. If a vacancy occurs during the term of a member of the Nominating Committee, it shall be filled by the candidate who had the next highest number of votes on the most recent ballot. The new member shall continue in office for the duration of the unexpired term.

i. Each new Chairperson of the Nominating Committee shall be selected from the committee by a poll of its newly constituted members conducted by the outgoing Chairperson. The new Chairperson shall have served at least one year on the Nominating Committee before being eligible for this position. No Chairperson may serve in that capacity more than one year of the term for which he or she was elected to the Nominating Committee.

2. Executive Committee¹⁵

The President, President-elect or Past-President, the two senior Vice-Presidents, Secretary, Treasurer, and Executive Officer, plus any additional Officers or Councilors designated by the Council, shall serve as an Executive Committee to act for the Council between Council meetings on all matters. Such actions of the Executive Committee shall be reported to the Council at its next regularly scheduled meeting.

3. Publications Board

a. The Publications Board shall regularly review the publication policies of each of the Society's publications and shall, in consultation with the Editors, report its findings and recommendations to the Council. This Board shall, when required, nominate for Council approval an Editor or Editor-in-Chief for each publication. This Board will be available to the Editors and will act as an advisory¹⁶ Editorial Board for each publication when called upon to do so.

¹⁵The provision assigning the Executive Committee to act for the Council between Council meetings has been modified by the deletion of the phrase: "which, in their judgement do not call for submission to the Council." This qualification of the authority of the Executive Committee inserts a murky legal uncertainty on the grant of authority to the Executive Committee. Neither the bylaws, nor the D.C. non-profit corporations act provide any guidance on how this should be interpreted. It is far better for the Council to specifically reserve some actions to itself, if it is unwilling to delegate these to the Executive Committee.

¹⁶The word "advisory" is inserted here to make clear that the Publications Board does not have the right to overrule decisions made by the Journal Editors who have been appointed by the Council.

b. There shall be seven members of the Publications Board, six serving in rotation for terms of four years, dating from the first of January in the year following their election, and the seventh being the chair who shall be elected by the membership in accord with procedures for election of Council Members. Each year the Council shall elect new Board Members as required from a slate proposed by the Nominating Committee in consultation with the journal Editors. Written consent to serve shall be required of all candidates for Board Membership before their names are placed on the slate. In the event the chair is serving as a member of the Publications Board at the time of election, that election shall be deemed to create a vacancy on the Publications Board and the appropriate procedures for filling such a vacancy shall be followed.

4. Additional Committees

The Council may appoint such other standing or ad hoc committees as it needs.

ARTICLE VII. SUBUNITS OF THE SOCIETY

1. Divisions of the Society for Special Subjects

a. The Council may appoint an Organizing Committee for the purpose of setting up a Division of the American Astronomical Society for a special subject. This action is in order whenever the present general meetings of the society as a whole, as well as its other activities, do not effectively and sufficiently contribute to the advancement of the research in the subject area because either:

1) a subject belonging to the discipline of astronomy in its broadest sense has grown unusually rapidly in research activity and has developed specialized approaches, or:

2) it receives a large portion of its key research contributions from scientists who are not professional astronomers in the conventional sense.

At the time such a Division is established, the Council shall appoint a temporary Chairperson of the Organizing Committee whose duty it shall be to conduct the election of the new Division's permanent Chairperson.

b. The Organizing Committee shall draw up the Bylaws governing the organization and the procedures of the Division subject to the following restrictions:

1) The Bylaws shall provide for such officers as are deemed necessary to administer the Division and for the formation of the Committee of the Division which shall be its governing body.

2)¹⁷ The Bylaws of the Division shall prescribe that Division officers shall be voting Members of the Division. Divisional Chairpersons, Secretaries and Treasurers (or Secretary/Treasurers if that is the case) shall be Members of the AAS.

3) The Bylaws shall prescribe the lengths and conditions of the terms of office for the officers, the method of their nomination and election, as well as the method of the nomination and election of Division Members.

4) The Bylaws shall prescribe a procedure for amending the Bylaws.

5) The Bylaws may contain additional provisions which are not inconsistent with the Bylaws and Constitution of the Society and which do not interfere in any way with the activities or affairs of the Society.

6)¹⁸ Before adoption of the Bylaws by the Organizing Committee, as well as subsequent amendments to these Bylaws by the Committee of the Division, they shall be submitted forty-five (45) days prior to the next Council meeting via the Society's Secretary to the Council of the Society for approval.

c. Each Division shall normally hold at least one Division meeting per year. All members of the Society shall have the right to attend such Division meetings. Announcements of Division meetings shall be published and distributed to all Society members.

d. The Treasurer of each Division shall submit annually a formal account of the finances of the Division to the Treasurer or Executive Officer of the Society for inclusion in the general accounts of the Society and for presentation to the Council. Division accounts may be audited if such action is deemed desirable by the Council.

e. Each Division shall be independently responsible for organizing its Division meetings. The Chairperson of each Division, or an alternate appointed by the Division, has the right to attend meetings of the Council, and to report upon Division activities, but not to vote.

f. Any Division may be dissolved at the discretion of the Council.

¹⁷We have inserted a requirement that only the Chairpersons and the Secretary and Treasurer (or the Secretary/Treasurer, if those offices are combined) of the Divisions be Members of the AAS. This will assure that those officers of the Division who may act in an official capacity for the Division as a unit of the Society, can be properly empowered and covered by the Society's insurance, etc. Persons elected to these offices in the Divisions can join the AAS before they take office to satisfy this requirement.

¹⁸We have added the process by which the Council will receive requests for changes in Divisional bylaws and specified a time period to assure that these can be distributed prior to the Council meeting.

2. Working Groups

a.¹⁹ Whenever it becomes apparent that coordinated action in a specific area would be beneficial, the Council may establish a Working Group for that subject and shall appoint a Chairperson and a steering committee. Steering committee members must be either Associate or Full Members of the Society. The steering committee shall decide the subsequent structure and organization of the Working Group.

b. Working Groups may hold meetings, identify problem areas, and take such actions as are necessary for the purpose of coordinating and aiding in the general purposes of the Society as are not inconsistent with the Bylaws and policies of the Society and that do not interfere with the other activities or affairs of the Society.

c. The Working Groups shall be responsible to the Council and shall submit annually to the Council a report of their activities for comment and approval.

d. Working Groups which fail to submit an annual report shall be presumed to have filled their need and will be deemed to have been dissolved. The Council may dissolve a Working Group at any time.

ARTICLE VIII. AMERICAN ASTRONOMICAL SOCIETY PUBLICATIONS

1. Publications²⁰

The Society shall publish refereed scientific journals of original content material such as the *Astronomical Journal* and *Astrophysical Journal* and other publications including but not limited to journals, monographs, databases, proceedings and reprint series as may be deemed advisable by the Council.

The Society shall publish additional materials in support of the work of the Society, including but not limited to educational materials, career services, historical materials, and public policy documents. Society publications may be made available in a variety of print and electronic media.

2. Editors

Each journal of original scientific content material shall have an Editor (or Editor-in-chief) who shall be responsible for the overall content and management of the journal. The Council, with advice from the Publications

¹⁹We have added the requirement that members of the Steering Committee for a Working Group must be either Members or Associate Members of the Society. This is in accord with our current practices.

²⁰The second paragraph has been added to recognize the additional publications of the Society, such as the *Newsletter*, the *AAS Directory*, and the various web publications.

Board, shall appoint each Editor. The term of the Editor shall be set by the Council and may be renewable. The Editor of each journal shall have the right to attend meetings of the Council, but not to vote.

The Editor may propose and the Council, with advice from the Publications Board, may appoint additional editors to assist in the editorial process. The term of the appointment shall be set by the Council.

3. Finances

A restricted fund shall be designated by the Council for the operation of each journal. Each such fund shall be maintained at a level of at least one-half (1/2) of the annual expenses of each journal.

The Treasurer shall annually review and report to the Council on the financial operation of each journal. The Council shall set the page charges and subscription rates for the coming budget year at a level which will maintain the required level in the journal fund or, in the case of a deficiency, which will restore the level within three years.

ARTICLE IX. AMENDMENTS

1. Procedure for Amendment

These Bylaws may be amended, altered or repealed in whole or in part, or new Bylaws may be adopted by the affirmative vote of two-thirds (2/3) of the entire Council at any regular or special meeting of the Council, provided that at least eight weeks written notice of the proposed changes has been given to the members of the AAS.

2. Temporary Suspension²¹

At any properly convened meeting of the Council, individual articles of these Bylaws may be suspended until the next succeeding Council meeting by a two thirds (2/3) vote of the total membership of the Council.

ARTICLE X. NON-DISCRIMINATION IN PROFESSIONAL ACTIVITIES

As a professional society, the AAS must provide an environment that encourages the free expression and exchange of scientific ideas. In pursuit of that environment, the AAS is committed to the philosophy of equality of opportunity and treatment for all members, regardless of gender, race, ethnic origin, religion, age, marital status, sexual orientation, disabilities, or any other reason not related to scientific merit. All functions of the Society must be conducted in a professional atmosphere in which all participants are treated with courtesy and respect. It is the responsibility of the chairperson of an AAS committee, of the organizers of any AAS meeting, and of the members themselves to ensure that such an atmosphere is maintained. Furthermore, the rich diversity of the Society's membership and of the astronomical community in general is a resource that should be drawn upon when selecting organizing committees, invited speakers, and nominees for office and for special prizes.

²¹This provision has been strengthened to provide that two-thirds of the TOTAL Council membership, rather than two-thirds of those PRESENT, must vote to suspend any provision of the bylaws.

CALENDAR

Listed below are meetings that have come to our attention; new listings or listings with updated information are flagged with an asterisk. Due to space limitations, we publish notice of meetings 1) occurring in North and Central America; 2) meetings of the IAU Commissions and Colloquia; and 3) other meetings as requested by AAS Members. Meetings that fall within 30 days of publication generally are not listed.

A complete list of international astronomy meetings is maintained by Liz Bryson, Librarian C-F-H Telescope (library@cfht.hawaii.edu) in collaboration with the Canadian Astronomy Data Centre, Victoria, BC. The list may be accessed at <http://cadcwww.hia.nrc.ca/meetings/>

AAS and AAS Division Meetings

Division on Dynamical Astronomy

9–12 April 2000 — Yosemite National Park, CA

Contact: Roy Laubscher (laubcorp@impulse.net)

*196th AAS Meeting

4–8 June 2000 — Rochester, NY

Contact: Judy Pipher (aasroc@astro.pas.rochester.edu)

Solar Physics Division

18–22 June 2000 — Stateline (Lake Tahoe area), NV

Contact: Janet Biggs (biggs@sag.lmsal.com)

Division for Planetary Sciences

23–27 October 2000 — Pasadena, CA

Contact: Rosaly Lopes-Gautier (rlopes@issac.jpl.nasa.gov)

High Energy Astrophysics Division

6–11 November 2000 — Honolulu, HI

Contact: John Vallerga (head2K@netcom.com)

<http://www.eurekasci.com>

197th AAS Meeting (w. AAPT)

7–11 January 2001 — San Diego, CA

Contact: Diana Alexander (diana@aas.org)

*198th Meeting of the AAS

3–7 June 2001 — Pasadena, CA

Contact: AAS Executive Office (aas@aas.org)

Other Events

IAU Coll. 181, “Dust in the Solar Sys. and Other Planetary Systems”

10–14 April 2000 — Canterbury, UK

Contact: M. L. Watts (M.L.Watts@ukc.ac.uk)

<http://www.ukc.ac.uk/physical-sciences/space>

IAU Symp. 200, “The Formation of Binary Stars”

10–15 April 2000 — Potsdam, Germany

Contact: Hans Zinnecker (hzinnecker@aip.de)

<http://www.aip.de/IAU2000>

*A Decade of HST Science

11–14 April — Baltimore, MD

Contact: Lorraine Garcia (garcia@stsci.edu)

<http://www.stsci.edu/isd/Decade/decade.htm>

*PHENO 2000 Symp.: Phenomenology for the Nu Millennium

17–19 April — Madison, WI

Contact: Linda Dolan (ldolan@pheno.physics.wisc.edu)

<http://pheno.physics.wisc.edu>

IAU Coll. 182: “Sources and Scintillations: Refraction and Scattering in Radio Astronomy”

17–21 April 2000 — Guiyang, China (PRC)

Contact: Richard Strom (strom@nrao.edu)

*XXVth European Geophysical Society Meeting

25–29 April 2000 — Nice, France

<http://www.copernicus.org/egs/egsga/nice00/nice00.html>

APS Meeting, Astrophysics Division Sessions include Origin of Magnetic Fields, Engine of Gamma Ray Bursts, First Chandra Results, Cosmic Rays, Highlights of 20th Century Astronomy.

29 April–2 May 2000 — Long Beach, CA

<http://www.aps.org>

37th Space Congress

1–5 May 2000 — Cape Canaveral, FL

Contact: Michael Sumner (michael.sumner-1@ksc.nasa.gov)

<http://www.SpaceCongress.org>

4th IAA Int’l. Conf. on Low-Cost Planetary Missions

2–5 May 2000 — Laurel, MD

Contact: R. W. Farquhar (diana.whitman@jhuapl.edu)

<http://sd-www.jhuapl.edu/IAA>

*Astrophysical Turbulence

8–12 May 2000 — Santa Barbara, CA

Contact: dorene@itp.ucsb.edu

<http://www.itp.ucsb.edu/conference/conf2000>

Gas and Galaxy Evolution

21–24 May 2000 — Socorro, NM

Contact: Michael Rupen (mrupen@nrao.edu)

<http://info.aoc.nrao.edu/doc/vla/html/Y2K/hiconf.shtml>

7th Conf. on Intersections Between Particle and Nuclear Physics

22–28 May 2000 — Quebec City, Canada

Contact: Anne MacInnis (macinnis@mit.edu)

<http://cipanp.mit.edu>

Annual Meeting of the Canadian Astronomical Society

25–28 May 2000 — Vancouver, BC, Canada

Contact: Mark Halpern (halpern@physics.ubc.ca)

4th Tetons Summ. Conf., “Galactic Structure, Stars, and the ISM”

28 May–1 June 2000 — Grand Teton National Park, WY

Contact: Chick Woodward (tetons4@wapiti.uwyo.edu)

<http://wapiti.uwyo.edu/tetons4>

*Joint European and National Astronomical Society Meeting (JENAM–2000)

29 May–3 June 2000 — Moscow, Russian Federation

Contact: jenam@sai.msu.su

<http://www.sai.msu.su/jenam>

*Kipfest, A Symposium Honoring Kip Thorne’s 60th Birthday

1–3 June 2000 — Pasadena, CA

Contact: Richard Price (rprice@physics.utah.edu)

<http://wugrav.wustl.edu/People/CLIFF/KipFest/kipmain.html>

*Astronomy in Ukraine — 2000 and Beyond; The Impact of International Cooperation

5–8 June 2000 — Kyiv, Ukraine

Contact: mao-2000@mao.kiev.ua

<http://www.mao.kiev.ua/mao-2000/>

Galaxy Disks and Disk Galaxies

12–16 June 2000 — Rome, Italy

Contact: George Coyne (gcoyne@specola.va)

<http://deborapd.astro.it/disks>

*SHINE 2000 Summer Workshop

14–17 June 2000 — Stateline, NV

<http://www.sec.noaa.gov/shine>

XIX Int’l Conf. on Neutrino Physics and Astrophysics

16–21 June 2000 — Sudbury, ONT, Canada

Contact: Pierre Lamoureux (nu2000@nrc.ca)

<http://www.nrc.ca/confserv/nu2000>

- *The 7th Synthesis Imaging Summer School
20–27 June 2000 — Socorro, NM
Contact: Greg Taylor (gtaylor@nrao.edu)
<http://www.aoc.nrao.edu/~gtaylor/synth2000.html>
- *Detectors for Space Astrophysics
26–30 June 2000 — Baltimore, MD
Contact: Chris Blades (blades@stsci.edu)
http://www.stsci.edu/stsci/meetings/space_detectors/
- 1st Guillermo Haro Adv. Lect. on the Starburst-AGN Connection
26–30 June 2000 — Tontantzintla, Puebla, Mexico
Contact: Secretaria del Programa Guillermo Haro (agn00@inaoep.mx)
<http://www.inaoep.mx/~agn00/>
- *General Assembly of the Royal Astronomical Society of Canada
30 June–2 July 2000 — Winnipeg, MNT, Canada
Contact: Andora Jackson (ajacks@cc.umantoba.ca)
<http://www.rasc.ca/ga2000/>
- *Catastrophic Events and Mass Extinctions: Impacts and Beyond
9–12 July 2000 — Vienna, Austria
Contact: tanner@ipi.jsc.nasa.gov
<http://cass.jsc.nasa.gov/meetings/impact2000>
- *Interacting Winds from Massive Stars
10–14 July 2000 — Quebec, Canada
Contact: Anthony Moffat (moffat@astro.umontreal.ca)
<http://www.astro.umontreal.ca/iwinds>
- 112th Meeting of the Astronomical Society of the Pacific
13–19 July 2000 — Pasadena, CA
Contact: S. Milanello (meeting@aspsky.org)
<http://www.aspsky.org/meetings.html>
- 33rd COSPAR Scientific Assembly
16–22 July 2000 — Warsaw, Poland
Contact: COSPAR Secretariat (cospar@paris7.jussieu.fr)
<http://www.copernicus.org/cospar/cospar.html>
- *The Cosmos in the Classroom 2: Teaching Astronomy to Non-Science Majors (Part of ASP Meeting)
17–19 July 2000 — Pasadena, CA
Contact: Andy Fraknoi (meeting@aspsky.org)
<http://www.aspsky.org>
- Astrobiology: The Early Solar System (Part of ASP Meeting)
17–19 July 2000 — Pasadena, CA
Contact: Laura Danly (ldanly@dmnh.org)
<http://www.aspsky.org/meetings.html>
- *Deep Millimeter Surveys: Implications for Galaxy Formation and Evolution
19–21 June 2000 — Amherst, MA
Contact: James Lowenthal (james@astro.umass.edu)
<http://www.astro.umass.edu/~mmconf>
- *Strangeness 2000: 5th Int'l. Conf. on Strangeness in Quark Matter
20–25 July 2000 — Berkeley, CA
Contact: G. Odyniec (G_Odyniec@lbl.gov)
<http://rncus1.lbl.gov/S2000>
- *Workshop on String Cosmology
24 July–4 August 2000 — Vancouver, BC, Canada
Contact: Sandy Rutherford (pfs99@kepler.physics.ubc.ca)
<http://kepler.physics.ubc.ca/~pfs99>
- IAU Symp. 202, “Planetary Systems in the Universe: Observation, Formation and Evolution”
7–10 August 2000 — Manchester, UK
Contact: Alan J. Penny (symp202@ast.star.ac.uk)
<http://ast.star.rl.ac.uk/symp202>
- *IAU Symp. 201: “New Cosmological Data and the Values of the Fundamental Parameters”
7–11 August 2000 — Manchester, UK
Contact: A.N. Lasenby (anthony@mrao.cam.ac.uk)
- IAU Symp. 203, “Recent Insights into the Physics of the Sun and Heliosphere-Highlights from SOHO and other Space Missions”
7–11 August 2000 — Manchester, UK
Contact: Bernhard Fleck (iau203@esa.nascom.nasa.gov)
http://sohowww.nascom.nasa.gov/meetings/IAU_Symp203
- *XXIV Gen. Assembly of the International Astronomical Union
7–18 August 2000 — Manchester, United Kingdom
Contact: enquiries@iau-ga2000.org
<http://www.iau-ga2000.org>
- IAU Symp. 204, “The Extragalactic Infrared Background and its Cosmological Implications”
15–18 August 2000 — Manchester, UK
Contact: Martin Harwitt (harwit@bellatlantic.net)
<http://www.iau.org/symp204>
- IAU Symp.205, “Galaxies and their Constit.at the Highest Ang. Resol.”
15–18 August 2000 — Manchester, UK
Contact: R.T. Schilizzi (schilizzi@jive.nfra.nl)
<http://www.nfra.nl/jive/iausymp.htm>
- The New Era of Wide-Field Astronomy
21–24 August 2000 — Preston, UK
Contact: Roger Clowes (r.g.clowes@uclan.ac.uk)
http://www.uclan.ac.uk/new_era
- *VC3: Victoria Computational Cosmology Conference
21–26 August 2000 — Victoria, BC, Canada
Contact: Julio Navarro (jfn@uvic.ca)
<http://pinot.phys.uvic.ca/~jfn/vc3>
- Eta Car and Other Mysterious Stars: The Hidden Opportunities of Emission-line Spectroscopy
24–26 August 2000 — Hven, Sweden
Contact: K. Davidson (kd@ea.spa.umn.edu)
<http://ferrum.fysik.lu.se/hven2000>
- 20th NSO/Sac Peak Simm. Wkshp: “Advanced Solar Polarimetry”
11–15 September 2000 — Sunspot, NM
Contact: ws2K@sunspot.nao.edu
<http://www.sunspot.nao.edu/info/misc/workshops/2000/ws2k.html>
- *Summ. Sch.: “Historical Development of Modern Cosmology”
18–22 September 2000 — Valencia, Spain
Contact: M-J. Pons-Borderia (pons@castor.ft.uam.es)
- *Spin and Magnetism in Young Neutron Stars
2–6 October 2000 — Santa Barbara, CA
Contact: dorene@itp.ucsb.edu
<http://www.itp.ucsb.edu/conference/conf2000.html>
- *11th October Astrophysics Conference in Maryland
16–18 October 2000 — College Park, MD
Contact: Susan Lehr (october@astro.umd.edu)
<http://www.astro.umd.edu/october>
- Astronomical Data Analysis Software and Systems X
12–15 November 2000 — Boston, MA
Contact: P. Buckley (pbuckley@head-cfa.harvard.edu)
<http://hea-www.harvard.edu/ADASS>
- *6th Compton Symp.: Decade of Gamma-Ray Astronomy with the Compton Gamma-Ray Observatory
4–6 April 2001 — Baltimore, MD
Contact: Sandra L. Barnes (barnes@grossc.gsfc.nasa.gov)
<http://cosscc.gsfc.nasa.gov>



NSF Director Rita Colwell gave the Public Policy Talk.



ESO Director General Catherine Cesarsky lectured on the results from ISO.



The meeting's LOC Chair, Harold McAlister (Georgia State U.) described the first scientific results from CHARA.

ATLANTA MEETING

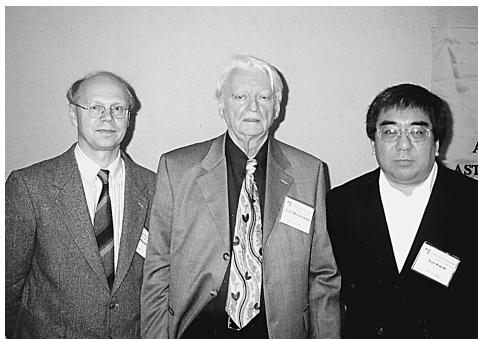
The weather cooperated, and over 1690 astronomers enjoyed the 195th national meeting of the AAS, in Atlanta. An invited talk on Comet Hale-Bopp (Lucy Ann McFadden, University of Maryland) and a session on the first results from Chandra were webcast live from the meeting, a first for our Society. The pictures are all AAS photos by Richard Dreiser, copyright 2000 by American Astronomical Society.



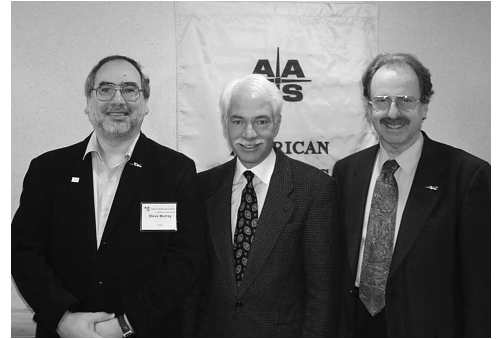
NASA Origins Director Anne Kinney had a reunion with her NYU professor, planetary nebula researcher Patrick Huggins.



Doggett Prize winner Owen Gingerich spoke in a HAD session along with Brenda Corbin (left, USNO) and Barbara Welther (right, CfA). Gingerich is retiring after teaching Harvard's longest running course "under the same management."



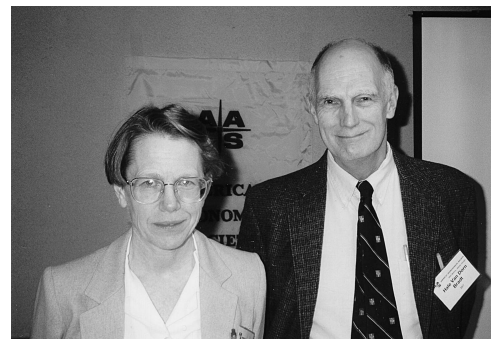
Researchers who told of possible astronomical implications for the origin of life on Earth were (left to right), Turku Observatory Director Mauri Valtonen, Curt Mileikowsky (Royal Institute of Technology, Stockholm), and Sun Kwok (U. Calgary).



Chandra Principal Investigators (left-to-right) Stephen Murray (CfA), Claude Canizares (MIT), and Gordon Garmire (Penn State U.) made headlines around the globe with announcements of their first discoveries.



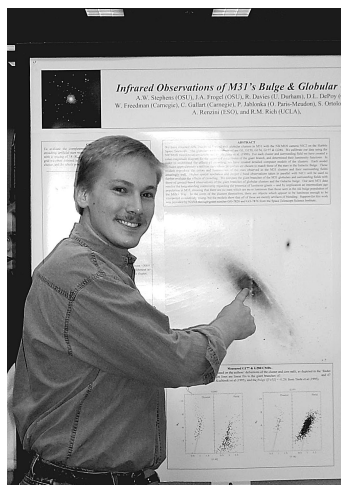
National correspondent Deborah Zabarenko (Reuters) posed with astronomer-astronauts John Grunsfeld (left, NASA) and Claude Nicollier (right, ESA), who reported on their successful EVAs to repair the Hubble Space Telescope in December 1999.



Rossi Prize lecturers were Jean Swank (GSFC) and Hale Bradt (MIT), honored for their leadership in science with the RXTE.



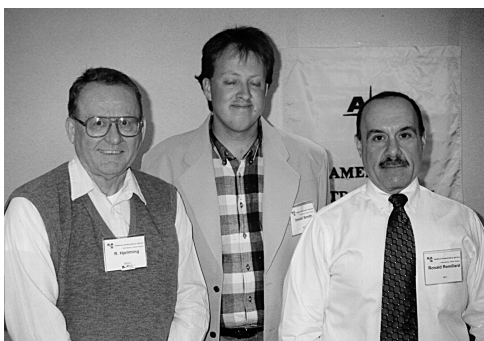
Top Chandra scientists at the meeting for the announcement of the first major science findings included (l. to r.) Project Scientist Martin Weisskopf (MSFC), LETG PI Albert Brinkman (SRON), Telescope Scientist Leon van Speybroeck (CfA), Chandra X-ray Center Director Harvey Tananbaum (CfA), and Science Spokesperson Wallace Tucker (CfA).



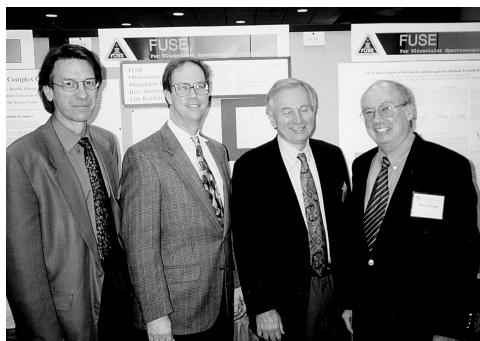
Andrew Stephens (Ohio State U.) investigated the long-controversial presence of luminous giants in the bulge of M31.



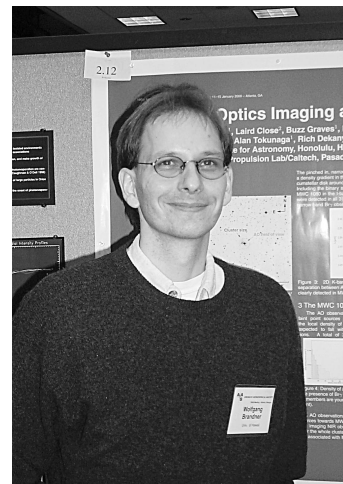
Evalyn Gates (Adler Planetarium) proposed a new component of the Galaxy that may account for data from the MACHO Project.



Radio astronomer Robert Hjellming (left, NRAO) joined MIT x-ray observers Donald Smith (center) and Ronald Remillard in reporting the antics of the latest and nearest known galactic microquasar.



FUSE worthies announcing the first results from that new telescope included (left to right) Project Scientist George Sonneborn (GSFC), Michael Shull (U. Colorado), PI Warren Moos (Johns Hopkins U.), and Blair Savage (U. Wisconsin-Madison), along with John Hutchings (not shown, NRC Canada).



Wolfgang Brandner (U. Hawaii) displayed adaptive optics observations of stellar targets, made with CFHT and the Hale telescope.



AAS President Robert Gehrz (with beard) participated in award ceremonies for (three photos, left to right) Warner Prize winner Lars Bildsten (UC, Santa Barbara), Pierce Prize awardee Dennis Zaritsky (U. Arizona), and the Dannie Heineman Prize for Astrophysics recipient Kenneth Freeman (Australian National U.) (where Freeman is flanked by Gehrz and AIP Director Marc Brodsky).



COMMITTEE NEWS

Employment

In this issue, we present another special column from an astronomer who has found success in an alternative career, Dr. José Navarro. Dr. Navarro earned his PhD from Caltech and then moved to a postdoctoral position at the National Radio Astronomy Observatory in Socorro, New Mexico. He now works for Geco-Prakla, an oilfield services company with offices outside London, England and around the world.

Any member who is interested in writing a guest column regarding their career, either 'traditional' or 'non-traditional' may send email to Kevin Marvel (marvel@aas.org).

An Astronomer in the Oil Industry

José Navarro, Geco-Prakla Ltd.

Three years ago I had a change of careers. After marrying a Norwegian, we decided to move to Norway. My particular research interest—pulsar radioastronomy—did not seem to be popular in this northern country, so I started to look for alternate work opportunities.

It just happens that our city, Stavanger, has long been the oil capital of Norway and I was able quickly to find compatible employment in data processing for oil exploration. Since my transition was successful and I am enjoying my new career, I thought I would share my story with other astronomers thinking of changing careers.

I was at the VLA in my second year as a postdoc, really enjoying myself while studying pulsars, but also thinking of the years ahead. Being an astronomer requires involvement in disciplines from astrophysics to electronics, computers, software, data management and observation, in addition to teaching and some level of management. All of us have some experience in these fields and also skills that could well be applied to other endeavors with similar requirements, be they in academia or industry. The question, of course, was whether I should work hard to succeed in academia, or whether I should work hard to succeed in industry. After some thought, I decided to give industry a try.

When I made this decision, I did it with the intent to return to astronomy if I wasn't happy after one whole year. Yet after three years, I am still happy! Needless to say I have had to learn a lot about geophysics in my new job, but the real challenge has been adapting to working in a multinational corporation.

I started in a small group doing commercial processing for seismic exploration, where we generated images of potential oilfields using data acquired by seismic vessels in the Norwegian and North Seas. In some ways this was not very different from observing at a telescope and then reducing the data back at home to form images or spectra. In fact, many of my image processing skills and even some of my experience with inversion methods came in very handy.

I now manage a small group that also does special imaging in seismic exploration, but under an international contract and based in England. When I made the move to England, my wife was able to transfer within her company to a different office. We were probably lucky in this respect and this points out another difficulty in the real world for both academically and industrially employed people.

In my new job as a manager, I am still doing some production work but my job is more complex. I must win more contracts, carry all projects to a happy and timely completion, and keep my group at the forefront of technology in our particular field. The challenges are to provide solutions to the specific requirements in each contract, to properly forecast what each project will entail, to find sufficient computing power and to keep costs down. Satisfaction comes mainly with a happy client and with a net profit, and more so when a project is technically challenging.

Being a manager may not sound very appealing to someone doing research, but, in truth, it exposes me to more projects and situations. It offers me the possibility to learn by concentrating on the bigger picture, and yet it still allows me to roll up my sleeves to solve specific technical issues when they arise and my help is needed. Sadly, from a business point of view, I find these crisis periods quite enjoyable because I can return to programming, problem solving and creative thinking of the kind that I thrived on as a graduate student.

Working in a large international company has some advantages: training is often provided when needed, resources and expertise almost always exist somewhere in the company and there are internal career opportunities. Jobs, however, are not secure and at least in oil exploration, redundancies are linked to the price of oil. Another source of frustration is that profit drives most work and, as a result, there is less possibility to dedicate time and resources to following up technical ideas that are interesting but not directly applicable. Even so, on the whole my experience has proven very inspiring and rewarding and I do not plan a return to academia.

Sometimes people ask me if a PhD in astronomy helps in a different industry. The answer is both a clear YES, in that it shows you are able to find original solutions to problems and work independently to implement them, and NO, in that none of the actual work for your thesis will probably be used. Nevertheless, the hard work is not wasted because, along the way, you learn new tools, how to find resources, how to solve smaller problems and how to make progress. In the end it is not just knowledge that counts, but also experience, resourcefulness and versatility. Being able to identify challenges and then finding direct, creative and cost effective solutions is what generates success.

ASP NEWS

Bob Havlen, Executive Director

Mercury Magazine for Schools

Members of the ASP can now donate subscriptions of *Mercury Magazine* to schools of their choice anywhere in North America for only \$15 per year. These new school gift subscriptions carry all the rights and privileges of full ASP membership including discounts on ASP catalog resource materials and meetings, and a subscription to our free quarterly teachers newsletter, "Universe in the Classroom," which is sponsored in part by the AAS, the AAVSO, and NRAO/AUI. If you would like to join with your colleagues to take advantage of this opportunity to improve astronomy resources in your favorite school, please sign up with the ASP as a member and gift donor at <http://www.aspsky.org>.

Continued on page 17

EDUCATION

Doug Duncan, Education Coordinator; photos by Doug Duncan

Rochester: Workshop for New Faculty

It's the moment you've waited years for. The telephone call comes, they offer you the job, and you've finally become a faculty member. Then it all hits you. In the fall you'll be expected to teach, to do research, to write proposals, to attend committee meetings, to say nothing of possibly raising a family and having a life. How will you possibly survive?

At the Rochester AAS meeting the Education Office will run a one-day workshop for new faculty designed to help you cope, to teach well, and to survive. Physics has been offering a similar (but longer) workshop for five years and new faculty rate it very highly. The workshop will begin one day before the meeting, on Saturday, allowing participants to save on airfares while attending the workshop. More details will be distributed and posted on the AAS Education WWW pages at <http://www.aas.org/education>, but you are welcome to send your name and any questions to us now at aased@aas.org.

Large Turnout for Atlanta Education Sessions

Education Sessions at the Atlanta AAS meeting drew much active participation. In the oral session 160 people heard

(From the left) Steve Shawl (U. Kansas), Tom English (Gardner-Webb U.), Matt Bobrowski (Orbital Sciences Corp., his backward baseball cap removed), and Harry Shipman (U. Delaware) at the NASA Education Session.



presentations ranging from the web-based tools created by **Greg Bothun** and colleagues which allow students to do N-body simulations of interacting galaxies, to **Tim Slater** (Montana State U.) on "How to Evaluate Astronomy Education Projects."

A separate NASA education session drew 80 more AAS members. The workshop, "Astronomy 101: A Continuing Dialogue," featured a presentation led by **Steve Shawl** in which an AAS member, **Matt Bobrowski**, posed as a student and asked tough questions about evolution and creationism that

astronomers had to answer. Twenty-five posters were presented on education and public-outreach topics. On the meeting's last day, a workshop was held for local science teachers and AAS astronomers. Highlights included high and low-tech lessons. An example of the former were the activities with a **10 μ m IR camera** presented by the SOFIA project.



A black and white photo of the Atlanta education crowd taken with the infrared camera.

The latter included **Cheri Morrow's** presentation of "Kinesthetic Astronomy."

I must confess that I was somewhat skeptical of the topic, but after seeing teachers and astronomers attempting to tilt at



Astronomers and teachers attempting to tilt at 23 degrees, rotate, and revolve, all at once, to demonstrate a "kinesthetic astronomy" technique.

23 degrees, rotate, and revolve around the sun (aka Cheri Morrow), I realized that this activity really could improve people's ability to visualize basic astronomy concepts.

Rate your Graduate School Experience

Ever wonder how your graduate school experience compares to that of others? Curious which department has the best faculty mentoring? The worst career guidance? So are we. The **National Association of Graduate-Professional Students (NAGPS)** is conducting The National Doctoral Program Survey to examine current and recent (within the last five years) graduate student satisfaction in all academic fields.

Funded by a grant from the Alfred P. Sloan Foundation, the survey results will be available to the public on the Internet by Fall 2000. Based upon best practices in graduate education, as recommended by the American Association of Universities and the National Research Council, among others, the survey covers a number of issues, including career guidance, teaching assistant training and supervision, curriculum flexibility, faculty mentoring, time to degree, department climate, professionalism, and overall satisfaction.

To participate, complete the survey at <http://survey.nagps.org> before **1 May 2000**. A significant percentage of students must respond for the results to represent a broad range of experiences and a realistic picture of department and institutional practices so please encourage all your colleagues to participate. Completing the survey only takes a few minutes but may stimulate change in graduate education for years to come.

ASP NEWS

Continued from page 16

ASP Liaisons

At most departments of astronomy in North America, there is a volunteer ASP member whose task is to serve as a conduit for information about ASP, its programs, membership, and activities to other faculty and staff. We gratefully acknowledge their service. A list of all ASP Liaisons can be found on the ASP website at <http://www.aspsky.org>. If your institution is not represented, please contact us at membership@aspsky.org.

Public Lectures - Reminder

The ASP website lists all astronomy public lectures known to us that are delivered by astronomers in North America. We need your help to keep our listings current. Please send flyers or emails to the ASP Webmaster as soon as the logistics of your lecture are determined. Help us help you in your outreach efforts.

Continued on page 20

DIVISION NEWS

HISTORICAL ASTRONOMY

Meeting in Atlanta

Virginia Trimble, Chair; photo by Tom Hockey

The Historical Astronomy Division returned to its normal January meeting schedule at Atlanta, including invited and contributed talks and posters, a business meeting, and the biennial Doggett Prize Lecture, mostly on Saturday, 15 January. It did so with reasonable success, despite the unexpected absence, due to illness, of one invited speaker (**Paul Hodge**) and one session chair (**David DeVorkin**, past CEO of the division), and the belated arrival of another session chair (the present author) who nearly managed to lose the Doggett Prize Certificate.

Doggett Lecture

The highlight of our gathering was undoubtedly the Doggett Lecture by **Owen Gingerich** entitled, "The Copernican Revolution Revisited." Armed with his usual wealth of images and translations from the literature of the 16th and 17th centuries (including both copies of *De Revolutionibus* that had been owned and annotated by Copernicus's heirs and monographs of the next generation), Gingerich proposed that the slow acceptance of the heliocentric model made good, Kuhnian sense. That was, in 1543, when *De Revolutionibus* was published, no crisis of disagreement between existing (geocentric, Ptolemaic) theory and observations of the positions and motions of the planets. And indeed, most of Copernicus' immediate successors seem to have regarded his aggressive use of uniform, circular motion as more important than the shift to heliocentrism. Only with Tycho's more precise positional measurements did the need for elliptical orbits and non-circular



HAD chair Virginia Trimble presents the Doggett Prize certificate to the 1999 awardee, Owen Gingerich (CfA). The impression that she is trying to reach around him to grab back the check held in his right hand is misleading. We were very pleased to be able to present it.

motion become clear (first, of course, to Kepler). And it took Galileo and the application of telescopes to astronomical purposes to reveal the phases of Venus, the moons of Jupiter, and other observations evidence favoring Sun over Earth as the center of our part of the cosmos. And then the majority of scholarly opinion shifted as you might expect. Thus technological advances were at least as important as inspired ideas in the completion of the Copernican revolution. And so, concluded the speaker, it has been from that time to this.

Bibliographic Resources; Spectral Classification

The Doggett Lecture was framed with two contributed talks. **Brenda Corbin** (USNO) spoke on bibliographic resources for the historian of astronomy (many of which can be accessed from <http://www.usno.navy.mil/library>). **Barbara Welther** (CfA) outlined the development of spectral classification (by Secchi, Wolf, Vogel, Pickering, Fleming, Maury, and Cannon) and the significance of the Henry Draper Catalogue (photo, page 14).

Four Talks on the Special Edition *ApJ*

The afternoon session included four talks based on the special, December issue of *Astrophysical Journal*, in which high-profile astronomers identified *AJ* or *ApJ* papers that they felt had marked major advances in our knowledge of the universe.

Helmut Abt reported precise data showing that these note-worthy papers had also been cited much more often than others published at the same time, literally for decades in most cases. The invited speakers were **Neta Bahcall**, **Robert Kennicutt**, and **Robert Kraft**. You must examine, or better, purchase, the special issue for yourself to find out which papers they had chosen and why.

Astronomy Literature

Additional contributions on the literature of astronomy came from **Ken Brecher** (the origins of the idea of neutron stars), **Brad Schaefer** (the extent to which Ptolemy borrowed from Hipparchos - one quadrant's worth, it seems), and **Don Osterbrock** (Baade's role in early work on supernovae and neutron stars). Additional HAD topics (including Stonehenge, the orbit of Pallas, and Robert Trumpler's work) appeared in other oral and poster sessions.

Business Meeting

The business meeting focused on (a) "What shall we do in San Diego?" (for which suggestions would be most welcome), (b) "Should the archives of referees' reports, editors' letters, and so forth from the Chandrasekhar and Abt eras at *ApJ* be preserved?" (clearly yes, though just how this is to be done and paid for in the long run remains somewhat unclear), and (c) the eternal questions of governance and keeping the AAS obituaries up to date. Past chair **David DeVorkin** passed the traditional, "*Ich bin HAD*," insigniae of office on to Chair **Trimble** with a bit of help from FedEx.

SOLAR PHYSICS

SPD Nominations Closing Soon

This spring, the Division will hold elections for the following SPD offices:

- Vice Chair (to replace Steve Kahler)
- Secretary (to replace Steve Walton) and
- two SPD Committee Members (to replace Peter Gilman and Karen Harvey).

Steve Kahler will rotate from his current position as Vice Chair to the SPD Committee, replacing the departing Jack Thomas. Those unfamiliar with these offices and their duties can read the SPD Bylaws at http://umbra.nascom.nasa.gov/aas_spd/spd_bylaws.html. Please send your suggestions for candidates to one of the members of the nominating committee: Gary Chapman, gary.chapman@csun.edu (Chair), Tom Bogdan, tom@hao.ucar.edu, Julia Saba, saba@sundance.nascom.nasa.gov. The slate will be finalized by **15 March**.

HIGH ENERGY ASTROPHYSICS

Special Sessions at Atlanta

Alice Harding, Chair

Rossi Prize Lectures

At this past meeting in Atlanta, HEAD awarded the 1999 Bruno Rossi Prize to **Hale Bradt** of MIT and **Jean Swank** of NASA Goddard Space Flight Center for their key roles in the development of the Rossi X-Ray Timing Explorer, and for the resulting important discoveries related to high time resolution observations of compact astrophysical objects (photo, page 14). Dr. Bradt delivered his prize talk on the major scientific results of the All-Sky Monitor on RXTE, including variability of micro-quasars and AGN, and ending with a fascinating video time-history of the X-ray sky. Dr. Swank reviewed the ground-breaking results from the Proportional Counter Array, which include the discovery of kHz oscillations in galactic neutron star and black hole sources.

Invited Talks

HEAD also organized two sessions of invited talks at the Atlanta meeting. An excellent session on *Jets in Astrophysical Sources* included talks by **John Beretta** from STCI, who gave a very nice (and colorful) review of observations of jets in a variety of galactic and extragalactic sources; by **Mitchell Begelman** from JILA, who gave a clear review of the basic physics of jet formation; and by **David L. Meier** from JPL, who presented numerical simulations (including video clips) of model jet formation.

The other session on the *Highest Energy Gamma-Rays, Cosmic Rays and Neutrinos* highlighted the exciting results which come from pushing observations to new realms. **Rene Ong**, of the University of Chicago, reviewed the discoveries made by ground-based imaging air-Cherenkov telescopes observing gamma-rays at TeV energies, which include emission from four supernova remnants and extremely energetic flares from AGN. **Todor Stanev** of Bartol Research Institute reviewed the enigmatic ultra-high energy cosmic rays whose sources are unknown. **Frances Halzen** of the University of Wisconsin presented the first results from the AMANDA neutrino experiment at the South Pole, which included a search for neutrino signals from gamma-ray bursts.

Chandra First Results

The first results from the Chandra X-ray telescope were presented in a special session on Friday (see photos, page 15). Following an introductory talk by **Martin Weisskopf**, the chief scientist for the mission, a series of talks presented results of the different instruments. **Leon Van Speybroeck** discussed the sub-arcsecond resolution of the mirror and the observations of distant galaxy clusters that will be possible. **Gordon Garmire** presented first images from ACIS of RCW103 and the periodicity detected of its central source, M82, the detection of SagA* and the Hubble Deep field. **Stephen Murray** presented results from the High Resolution Camera that included observation of CenA, PSR0540-69 and M31. **A. Brinkman** described the performance and unprecedented resolution of the Low Energy Transmission Grating Spectrometer. Finally, **Claude Canizares** presented spectra from the High Energy Transmission Grating Spectrometer of stellar coronae, binary X-ray sources, the Crab, SS433, SNR E0102-72, NGC 1275 and other AGN.

DYNAMICAL ASTRONOMY

Marc A. Murison, Secretary

2000 DDA Meeting: What's New?

The 2000 DDA meeting is in Yosemite National Park, California, 9–12 April, 2000. There will be a reception the evening of the 9th, and a banquet on the 11th. The deadline for abstract submissions was 2 March, but it's not too late for late abstract submissions.

Invited speakers will include **Robin Canup** (SWRI) who will speak on the origin of the moon, **Francis Everitt** (Stanford) on Gravity Probe B; **Doug Hamilton** (U. Maryland) on resonances, drag forces and the Jacobi Constant; and **Andrea Milani** (U. Pisa) on asteroid hazards.

All meeting information, including lodging details, deadlines, and meeting program, are posted on the DDA web site at <http://dda.harvard.edu/>.

PLANETARY SCIENCES

Nominate for Division Prizes by 30 April

The DPS sponsors four prizes: the **Kuiper Prize** honoring outstanding contributions to the field of planetary science; the **Urey Prize** recognizing outstanding achievement in planetary research by a young scientist; the **Masursky Award** acknowledging outstanding service to planetary science and exploration; and the **Sagan Medal** recognizing and honoring outstanding communication by an active planetary scientist to the general public.

All DPS members are encouraged to submit nominations for these prizes to the Prize Subcommittee Chair, Donald K. Yeomans (Donald.K.Yeomans@jpl.nasa.gov) by **30 April 2000**. A nomination form, qualifications for the four prizes, and past winners are available on the DPS web site, http://www.aas.org/~dps/prizes_contact.html.

A complete nomination requires a curriculum vitae, bibliography, abstracts of three illustrative papers by the candidate, and three supporting letters. For the Masursky Award or Sagan Medal, bibliography and abstracts may be included, if appropriate, but are not required.

San Diego Special Session Topics Due 12 May 2000

The AAS will be meeting with the American Association of Physics Teachers for its 197th Meeting in January 2001. Proposals for Special Sessions at this meeting are due in the Executive Office no later than **12 May** and may only be suggested by AAS members. Proposals received after that date may not be reviewed for inclusion in the program. Please send requests to Diana Alexander at diana@as.org. What's a special Session? See page 23.

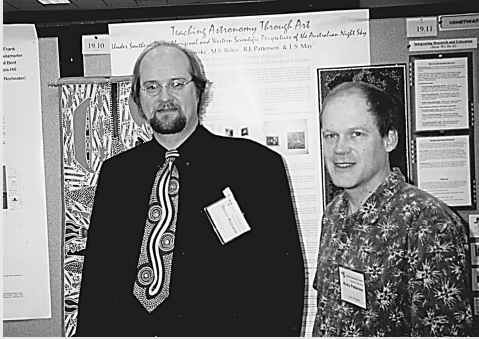
ATLANTA MEETING HIGHLIGHTS

Continued from page 15



Geoffrey Burbidge (left, UCSD) smiled at a media reception hosted by Simon Mitton (right, Cambridge U. Press), publisher of his new book.

Steve Majewski (left) and Ricky Patterson (right), both of U. Virginia, explained how to teach Astronomy through art.



Kenneth Wood (SAO) calculated the escape of ionizing radiation from distant galaxies, while Annette Ferguson (Cambridge U.) investigated the puzzling object Andromeda IV.

Investigators of what may be the youngest known protoglobular clusters, members of two groups joined in an AAS press conference. They are (l. to r.) Henry Kobulnicky (U. Wisconsin-Madison), Sara Beck (Tel Aviv U.), Varoujan Gorjian (JPL), Jean Turner (UCLA) and Kelsey Johnson (U. Colorado).



Gerard van Belle (JPL) and Orsola DeMarco (UCL) compared notes at a display session.

HONORED ELSEWHERE

Ray Davis Honored Again for Neutrino Work

The Wolf Foundation has announced that for his research on neutrinos, AAS Member **Raymond Davis, Jr.**, of the University of Pennsylvania, in Philadelphia, will share the \$100,000 Wolf Prize with **Masatoshi Koshiba**, of the University of Tokyo. With this prize, Dr. Davis continues to be recognized for his fundamental work on the solar neutrino problem. In 1996, he won the Solar Physics Division's Hale Prize.

Starting in the 1960s, Davis perfected a method of detecting solar neutrinos using chlorine, which captures neutrinos and transitions to argon. Davis was so far ahead of the science of the day that, for twenty years, his was the only method that could prove that solar neutrinos had been discovered (in roughly the last ten years, three neutrino experiments have been developed to confirm the discovery).

Wolf Prizes are given annually for outstanding achievements in agriculture, the arts, chemistry, mathematics, medicine, and physics. Ezer Weizman, the president of Israel, will bestow the prizes in Jerusalem on 21 May 2000.

Ziurys Chosen U. Tokyo's Morino Lecturer

AAS Member **Lucy Ziurys**, University of Arizona professor of astronomy and chemistry, has won the prestigious Morino Lectureship from the University of Tokyo for her scientific work in the field of molecular spectroscopy and its application to the astrochemistry of the interstellar medium. Ziurys has been involved in the discovery of at least ten percent of all interstellar molecules in interstellar space. Her research activities in astrochemistry combine both laboratory work and radio astronomy.

The Morino Lectureship was established in 1985 by the late Professor Yonezo Morino, a famous Japanese molecular spectroscopist, to support and encourage young scientists in the field of molecular science. It was also intended to give the opportunity for a foreign distinguished scientist to come to the University of Tokyo to instruct young scientists and students who are working in the frontier of various fields of molecular science. Ziurys is the first woman to be honored with this lectureship.

ASP NEWS

Continued from page 17

Teaching Astronomy to Non-Science Majors

17-19 July 2000, Pasadena, CA, part of the ASP 112th Annual Meeting

Designed for everyone who teaches introductory astronomy at the college level, this symposium will focus on ways to improve your teaching, to involve students more effectively, and to put astronomy in a wider context. The program will include panels of mentor instructors, an exchange of handouts and teaching resources, and hands-on workshops for trying new techniques and approaches. Participants will range from veteran instructors grumbling about how much better students were in the old days, to nervous graduate students about to teach their first solo course.

Send requests for information and offers to participate to 2000 ASP Education Symposium, ASP, 390 Ashton Ave., San Francisco, CA 94112. Our Fax is 415-337-5205. Be sure to include your email address, Fax, and all other relevant contact information.

NEWS FROM NSF

Hugh Van Horn, Director, Astronomical Sciences Division (AST)

AST's Strategic Plan and Portfolio Allocation Review

Early last fall, the National Science Foundation's Division of Astronomical Sciences (NSF/AST) completed a Strategic Plan for the next three to five years. Its purpose was to identify the major intellectual opportunities and challenges available in research and education in Astronomy over that time period. Several leading astronomers and astrophysicists helped us finalize this document. This Plan, which has been available through AST's Web page since September 1999, was reviewed by senior members of NSF's Directorate for Mathematical and Physical Sciences (NSF/MPS) and by a subcommittee of the MPS Advisory Committee (MPS/AC) prior to posting on the Web.

The Strategic Plan identifies several initiatives to strengthen the AST portfolio, including significant augmentation of the research grants programs, increased support for instrumentation and technology development, and improved funding for the major ground-based observing facilities. In addition, the Plan identifies new opportunities to support educational initiatives by U.S. astronomers and increased responsibilities to work for protection of the electromagnetic spectrum and dark skies near observatories for astronomical research.

Although future funding prospects are uncertain, a full implementation of the elements in this Plan would require, over time, a substantial increment to AST's annual budget, as well as significant investments for new facilities. For example, such funds will be necessary for construction of the Atacama Large Millimeter Array (ALMA) currently being planned by an international consortium involving NSF's National Radio Astronomy Observatory (NRAO) and several European nations.

To provide immediate assistance to NSF in evaluating AST's current research investments, and to help set priorities within the Strategic Plan under conditions of constrained budgets, a Portfolio Allocation Review (PAR) — open to the public — was held at NSF during 29 November through 2 December 1999. Chaired by **Robert Gehrz**, President of the American Astronomical Society, the PAR was chartered as a subcommittee of the MPS/AC. Other members of the PAR committee were **Robert Bless, John Huchra, Michael Knotek, Rene Ong, R. Bruce Partridge, Philip Solomon, Arthur Walker, William J. Welch, and Lee Anne Willson**. The PAR report was submitted to NSF on 21 December 1999. The AST staff has drafted a preliminary response, and both the report and the divisional response will be forwarded to a subgroup of the MPS/AC and, assuming acceptance, will be posted on the Web as soon as possible.

Small Research Grant Proposals Due 5 May

This program provides funds for small projects, travel for observing, educational or public outreach efforts and small hardware expenses that enable research. Proposals are accepted in amounts that range from \$1000 to \$5000. There are two grant cycles with deadlines of **5 May 2000** and **1 December 2000**. For details, see page 18, *Membership Directory* or <http://www.aas.org/grants/smrg.html>.

MEXICAN NEWS

Mexican Astronomers Meet

Kevin Marvel, Associate Executive Officer for Policy Programs

From 3-5 November 1999, more than 105 Mexican and South American astronomers from 27 institutions gathered in Guanajuato, Mexico to exchange scientific results and discuss future plans for astronomy in Mexico.

The Conference was the XIIIth Reunión Anual de Astronomía, now a yearly event rotating among the five major astronomy institutes in Mexico: the UNAM, Mexico City; INAOE, Tonantzintla; UNAM-Morelia; OAN-UNAM, Ensenada; and the Astronomy Department of the Universidad de Guanajuato.

Numerous exciting scientific results were presented including a talk by Alberto Carramiñana on the current status of the Large Millimeter Telescope, a joint project between the United States and Mexico to build a 50m millimeter telescope on the summit of a volcano near Mexico City. José Luiz-Rodríguez presented a public lecture on faster-than-light motions. Omar Lopez-Cruz presented results on cosmological modeling using clusters of

galaxies. The conference concluded with a discussion about whether it was time to form an organization for professional astronomers in Mexico. Certainly the breadth and vitality of Mexican astronomy is undeniable.

Muchas gracias al Comité Organizador y el Comité Local para sus hospitalidad!



José Luiz-Rodríguez presenting the public talk on apparent faster than light motions observed in galactic stellar jet sources.



The conference included a traditional Callejoneada, or stroll through the narrow streets of Guanajuato accompanied by guitar-playing minstrels and a regularly refilled porrón (a fluted vase for drinking grape-related beverages).



Omar López-Cruz and Marco Moreno-Corral enjoy a break with café y Carteles near the poster area between scientific presentations.

ANNOUNCEMENTS

2001-2002 Fulbright Scholars Program

Opportunities for lecturing or advanced research in some 130 countries are available to college and university faculty and administrators as well as professionals from business, government, artists, journalists, lawyers, independent scholars and many others. For complete information, see <http://www.iie.org/cies>. The application deadlines for 2001-2002 Fulbright lecturing and research grant worldwide is **1 August 2000**.

CSO Call for Proposals

The Caltech Submillimeter Observatory (CSO) encourages observing participation by astronomers from both US and non-US institutions. Complete instructions for application and information about available instruments, including new receivers, can be found at <http://www.submm.caltech.edu/cso/cso-call.html>.

Applications for observing time between 1 Sept. 2000 through 31 Jan. 2001 are due by mail **31 May 2000**. Applications will be reviewed by an outside peer group.

Nominate for Jansky Lectureship by 31 March

The National Radio Astronomy Observatory and Associated Universities, Inc., (AUI) invite nominations for the 35th annual Jansky Lectureship. The Jansky Lectureship is awarded each year by the Trustees of AUI for outstanding contributions to astronomy. Recent recipients include Frank Drake, Bernard Burke, Jim Peebles, Jim Moran, Jocelyn Bell, Vera Rubin, Alan Sandage, and Irwin Shapiro. Nominations with a few paragraphs of justification should be sent via email to brodrigu@nrao.edu or to the Directors Office, NRAO, 520 Edgemont Road, Charlottesville, VA 22903 for arrival by **31 March 2000**.

Clemson Joins the SARA Consortium

Clemson University in South Carolina has joined Florida Tech, East Tennessee State University, University of Georgia, Valdosta State University and Florida International University in the Southeastern Association for Research in Astronomy (SARA), <http://www.astro.fit.edu/sara>. SARA operates a 0.9m telescope at Kitt Peak National Observatory outside Tucson, Arizona.

Clemson's financial participation will allow the Consortium to complete the robotic phase of the observatory control system, which allows remote operation over the Internet by any of the member institutions. The consortium participates in the National Science Foundation-funded SARA-Research for Undergraduates (REU) site program. Ten undergraduates are selected from over 200 applicants each year for the ten week summer program at Kitt Peak.

NASA FY 2000 STTR Solicitation

The draft topics for the FY 2000 Small Business Technology Transfer (STTR) program are available on-line for review at <http://sbir.gsfc.nasa.gov/SBIR/str2000/presol/index.html>. Please note the Scientific Research and Information Systems topics will be issued via GSFC and ARC respectively. This program is designed for universities, JPL, etc. and small businesses to work together to make new technology available through small businesses. The final solicitation was due to be issued about **1 March 2000**.

Two New NAS Reports Available

The Space Studies Board (SSB) has recently issued a report, US-European-Japanese Workshop on Space Cooperation: Summary Report, that documents a workshop held during May 1999 in Tokyo at the Science Council of Japan. Three trilateral, cooperative space science missions Geotail, Yohkoh, and ASCA were surveyed for lessons learned about cooperation among the three partners. The report calls attention, in particular, to questions regarding the implications of current export control policies on international cooperative activities and the challenges in negotiating cross-waivers of liability and memoranda of understanding.

The SSB Committee on Planetary and Lunar Exploration (COMPLEX) has released a report entitled, "A Science Strategy for the Exploration of Europa." The report is also on the Web at <http://www.nationalacademies.org/ssb/comp-europamenu.htm>

To receive copies of these reports (while supplies last), or any other information about Board activities, please contact the Space Studies Board at ssb@nas.edu or at 202-334-3477. Individual copies are available free of charge from the Space Studies Board, HA-584, 2101 Constitution Ave., NW, Washington, DC 20418.

NRAO Call for Proposals

Astronomers are invited to submit proposals for observing time on the NRAO Very Large Array (VLA), Very Long Baseline Array (VLBA), and 12 Meter Telescope:

Instrument	Deadline	Observing Period	Note
VLA	2000 Jun 1	2000 Oct - 2001 Jan	A config/max baseline 36 km
	2000 Oct 1	2001 Feb - 2001 May	B config/max baseline 11 km
VLBA	2000 Jun 1	2000 Oct - 2001 Jan	
	2000 Oct 1	2001 Feb - 2001 May	
2 Meter	2000 Jul 1	2000 Sep - 2000 Dec	
	2000 Oct 1	2001 Jan - 2001 Mar	

The NRAO 140 Foot Telescope is closed to new proposals, in expectation that visitor observing with the NRAO Green Bank Telescope will commence in 2000.

The NRAO and the European VLBI Network jointly handle proposals for observing time on the Global VLBI Network. The deadlines are 2000 Feb 1 for the sessions in 2000 May/June and Sep, and 2000 Jun 1 for the session in 2000 November. Further information on NRAO instruments and proposal submission routes is available from the NRAO home page at <http://www.nrao.edu>.

Larger Slipher Grants; Proposals Due 22 May

During 2000/2001, the AM Slipher Committee of the National Academy of Science make two awards of \$5,000 each for a project that enhances the public understanding of astronomy. The Committee will fund projects that request seed funding for programs extending beyond the funding period, and which provide services to more than a single group. For further information or to submit proposals contact Dennis Schatz, Chair, VM Slipher Committee, Pacific Science Center, 200 Second Avenue North, Seattle, WA 98109, Tel: 206-443-2001.

SIRTF Workshop Report Online

A report on the SIRTF workshop held August 1999 at Dana Point, CA, entitled, "The Solar System and Circumstellar Dust Disks: Prospects for SIRTF," is now available at http://ssc.ipac.caltech.edu/observing/Dana_Point/Hanner.pdf

SRBL On Line

Data from the prototype SRBL dish at OVRO is now downloaded every hour at the SRBL icon on the Caltech solar astronomy home page, <http://goldilocks.caltech.edu/>. The archive shows data since 17 December 1999. The dish covers the range 2000-18000MHz and picks up bursts down to 10 sfu. The next four-station system should be ready for sunspot minimum, or for the next solar cycle (2010). Positions are not displayed yet, but may be obtained by emailing Brian Dougherty, BLD@Caltech.edu, 626-395-3863. Soon, positions will be displayed and for bursts greater than 500 sfu.

Dudley's Fullam Award Applications due April 1

The Ernest F. Fullam Award has been established by the Dudley Observatory to provide encouragement and support for an innovative research project in astronomy or astrophysics. The Award consists of a maximum of \$10,000 together with an additional grant toward the expenses of publication of the research supported by the Award. The applicant is expected to be affiliated with a college, university, or observatory located in North America, including Canada, Mexico and Puerto Rico. Email ralpher@union.edu to request announcement. Complete information can be found at <http://www.rpi.edu/~waitsc/dudley.html>.

Special vs. Topical Sessions: What's the Difference?

Special Sessions

- When:* Winter and Spring meetings
Length: One and one half hours; will be scheduled at the same time as other oral sessions
Format: Invited, contributed papers, or a combination of the two
Proposal Content: Strong justification for topic, speakers
Proposals Due to Executive Office:
 For winter meeting: **early May**;
 For spring meeting: **early December**

Topical Sessions:

- When:* Spring Meetings only; Tuesdays and Wednesdays
Length: Half day (3 ¼ hours) or Full day (6 ½ hours)
Format: Invited speakers, invited posters, invited debates, or other innovative structure; only three topical sessions will be scheduled at the same time
Proposal Content: Strong justification for the general theme, description of format, list of speakers and sub-topics
Proposal Due to Executive Office: **15 November.**

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However, this total is allocated almost entirely to the Astronomy Research and Instrumentation line.

- The National Centers have flat budgets compared to FY 2000 (although Gemini shows an increase of \$600,000 (or 7.5%) for FY 2001). This situation is sure to have a negative impact on the National Centers and points out that astronomers should not treat observing time at the national facilities as an entitlement.
- The Atacama Large Millimeter Array, formerly known as the MMA, continues into a fourth year of design and development at \$6 million in funding compared to last year's \$8 million.
- The South Pole station receives a \$9 million dollar increase for safety upgrades. This facility is used to perform astronomical observations and the community receives a benefit when its funding level is increased.

Although the administration's proposed budget for 2001 looks reasonably good at this point, members should remember that *Congress has the ultimate authority over government expenditures.*

Because the theme on the Hill continues to be fiscal responsibility, *the research community must contact Congress throughout the coming months to ensure success for this proposed budget.*

The main message members should convey is that a balanced portfolio of investment in basic research, including funding for astronomy as well as other sciences, is needed to continue to fuel the nation's prosperity.

PRESIDENT'S COLUMN

Continued from page 1

- Arrange a visit with the home office staffer or even the representative at a time when there is no serious funding issue or authorization issue under consideration. Just get to know the individuals and let them know about you and what you do;
- Arrange for your representative to visit an astronomy related activity (*e.g.* open house night at the telescope, an amateur night etc.) or even your place of work. Arranging for the local press also to attend the activity will increase the likelihood that the representative will attend;
- Visit more than once! This is the most important strategy; Washington thrives on personal relationships. Work on establishing a long-term relationship with the representative or their staff. By showing that you are interested in their work, they will be interested in your work.

The AAS public policy web pages will provide the information needed to contact your representative (*e.g.* local office phone numbers). Instant address lookup for members of Congress based on your home or work zip codes is found there. During this budget cycle, periodic calls to action will be issued to let AAS members know when they should be contacting their representatives and what special concerns they should convey.

Thanks to your great response last year in support of the NSF and NASA budgets, we averted a funding crisis. We can be even more effective this year by being "quick off the blocks" in this new funding cycle



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WASHINGTON NEWS

Kevin B. Marvel, Associate Executive Officer for Policy

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“Dead on Arrival ?”

On February 7, members of the Administration fanned out across Washington to unveil the President’s proposed budget for FY2001. From early analysis, the overall impact of his budget on astronomy is positive, with increases for both NASA and NSF, although the

President has proposed no increase for the NSF National Centers budgets, NOAO, NRAO, and NAIC, which means that next year they will have to absorb all inflationary costs.

The ominous cloud in this somewhat hopeful picture is that the President’s Budget relies upon raising by 3.9% the domestic discretionary spending limits imposed by Congress in the 1997 “Balanced Budget Act.” While there is some Congressional support for this, in light of current budget surpluses and the booming economy, the *International Herald Tribune* predicts a heated debate and quotes House Budget Committee Chair, Rep. John Kasich of Ohio, as calling the budget, “Dead on Arrival.”

The budget details can be found on the AAS Public Policy pages at <http://www.aas.org/policy/index.html>.

NASA

The Office of Space Science is slated to receive \$2.398 billion in FY 2001, a large increase (about 10%) above FY 2000:

- The Office will lead a new initiative entitled, “Living with a Star,” which receives \$20 million for FY 2001. This initiative incorporates the Sun-Earth connection theme and

includes a set of missions, enhancements to current programs, and partnerships with other federal agencies such as USAF, NOAA and NSF.

- The Mars Surveyor program receives a \$78.3 million increase (about 32%) over last year. Most of this increase is additional funding for future missions and an increase in the Mars Telecom Network and Science Micromissions. The entire Mars program is undergoing major re-planning due to the failures of Mars Climate Orbiter and Mars Polar Lander.
- Academic program funding increases by roughly 10% for FY 2001 to \$1,302.8 million.
- Significant increases are proposed for both the Discovery (27% increase) and Explorer (13% increase) programs, for FY 2001 totals of \$196.8 and \$138.8 million, respectively. This represents the Administration’s continuing endorsement of the “Better, Faster, Cheaper” philosophy and recognizes the successes these programs have achieved. An interesting element, Discovery Micromissions, has been added to the Discovery program.

For more information, see

http://ifmp.nasa.gov/codeb/budget2001/PDF/11_sat_space_science.pdf.

NSF

NSF overall shows a very significant increase of \$675 million (17.3%) above last year. This is double the largest dollar increase the agency has ever received and represents the administration’s recognition that science and technology are at the core of our Nation’s current recent economic success. However, about half of this amount is tied to new initiatives.

- The Astronomical Sciences Divisions receives an overall increase of 13.7%, or \$16.8 million, more than last year.

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