

PROCEEDINGS OF THE TENNESSEE ACADEMY OF SCIENCE 2003

SARAH H. SWAIN, SECRETARY TAS

*Middle Tennessee State University, Murfreesboro, Tennessee*TENNESSEE ACADEMY OF SCIENCE
EXECUTIVE COMMITTEE MEETING
25 April 2003

President Karen Kendall-Fite called the meeting of the Executive Committee of the Tennessee Academy of Science (TAS) to order at 7:05 PM CST in the President's Room of the University Center on the campus of Belmont University, Nashville, Tennessee, 25 April 2003. Attendees were Past President and Director of Tennessee Junior Academy of Science Jack Rhoton, President-elect and Meeting Coordinator J. Michael Redding, Secretary Sarah H. Swain, Managing Editor M. Gore Ervin, Members-at-large Stephen Wright and Stuart Elston, Director of Electronic Communications James C. Howard, State Science Consultant Linda Jordan, Education Committee Chairperson Cindi Smith-Walters, Publicity Committee Chairperson Mandy Carter-Lowe, Long-range Strategic Planning Committee Chairperson George Murphy, Financial Oversight Committee Chairperson Andrew Slinger, Past Presidents Martin V. Stewart and Steve Murphree, Tennessee Science Teachers Association (TSTA) President Charles Baldwin, TSTA Treasurer Barry Farris, and TSTA Past President Ruth Woodall.

Minutes of the November 2002 Executive Committee meeting had been sent to committee members by Secretary Swain. A motion to approve the minutes passed. Secretary Swain distributed rosters of the 2003 Executive Committee to attendees.

REPORTS FROM OFFICERS AND DIRECTORS

President-elect and Meeting Coordinator—Michael Redding submitted the following report:

"The 2002 Meeting of the Tennessee Academy of Science on the campus of East Tennessee State University was a most successful event. By my records we had 72 oral and 21 poster presentations. Considering the non-central location of this meeting, we were pleased by the unexpectedly high number of presenters.

"The Executive Committee decided at their meeting in November to pursue a joint meeting in 2003 with the TSTA. To that end several TAS members, including the President (Kendall-Fite), Past-President (Rhoton), Treasurer (Harris), Meeting Coordinator and President-Elect (Redding), and Local Arrangements Member (Murphree) attended a planning session with the TSTA Planning Committee at the Cool Springs Marriott, near Franklin, Tennessee on January 31, 2003. The planning session was productive, yielding several important decisions concerning room allocation, registration procedures, program development and joint publishing and mailing requirements, cost sharing, and topics for plenary sessions and workshops.

"I have obtained a commitment from Dr. Carl Owens, Professor of Curriculum and Instruction, College of Education, Tennessee Technological University, to make a plenary presentation on his nationally recognized program for introducing computer technology into the K-12 classroom setting. A full-session symposium/workshop on the teaching of evolutionary biology in high school is being developed to support a request originating with the TSTA Planning Committee."

As TAS Representative for the American Association for the Advancement of Science (AAAS), Section Y, Michael Redding discussed the following report:

"Representing the TAS, I attended the Annual Meeting of the American Association for the Advancement of Science (AAAS) in Denver on February 14-16, 2003. The following comments summarize my activities and information deemed pertinent to the TAS.

"I attended the workshop entitled "Improving Students' Understanding of Health-Related Research Through Inquiry-Based Science Curricula", sponsored by the National Institutes of Health, Office of Education and the BSCS, a non-profit organization dedicated to development of science curriculum. As the title implies, current trends emphasize direct student inquiry as a means for improving science education in K-12 and college curricula. One teaching module, *The Brain: Understanding Neurobiology Through the Study of Addiction*, was demonstrated. Presenters emphasized that these modules were intended to replace, not supplement, specific units in the curriculum.

"The Section on General Interest in Science and Engineering (Section Y) held its annual business meeting on February 14. Chairperson Elizabeth S. Hafen (retired, MIT) presided. Chair-Elect Susan E. Cozzens (Georgia Tech), assumed the Chair's position on February 18, 2003. Gloria Takahashi, a long-time chairperson of the American Junior Academy of Science, was announced as the newest Member at Large. Four new AAAS Fellows were elected from the Section, including Stephen T. Case, Lynne Friedmann, Elizabeth Ivey, and Leon Jaroff.

"John Safko, Section webmaster, encouraged all to visit the website at <http://science.aaas.org/~general>. Links to Section sponsored symposia will be listed on the site along with general information.

"I proposed the topic, Philanthropy, Research, and International Health Initiatives, for consideration as a Section Y sponsored symposium at the 2004 AAAS Meeting.

"The National Association of Academies of Science (NAAS) Delegates Workshop was held on February 15 prior to the Business meeting. Past-President Howard Pitkow arranged a presentation by a senior scientist at the United States Geological Survey National Earthquake Center.

"The annual business meeting of NAAS delegates was held

on February 15. President Steven Case (Mississippi) presided. Dr. Assad Panah (Pennsylvania) was recognized as the incoming President. Dr. Ed Brogie (Nebraska) was elected as President Elect. Dr. Case gave a detailed accounting of income and expenses associated with the conduct of NAAS business. The annual budget is about \$3500. The primary function of the NAAS is the organization of the American Junior Academy of Science (AJAS) meeting. The AJAS has a budget of about \$100,000 per annum generated from corporate fundraising and registration fees. Ertle Thompson, one of the founding sponsors of the AJAS and 31 year member of the NAAS announced that this would be his final appearance at the annual meetings."

Michael Redding also reported that 2002 NAAS President Steven Case proposed free electronic compilation of all state journals. Perhaps this would be an option to consider in the future.

Past President—Jack Rhoton expressed his appreciation to TSTA for their response and cooperation in planning for the joint meeting. He reiterated the importance of partnership with those teachers who prepare our college students. Rhoton also reported on the recent appointment of Teresa Fulcher and James Howard to the Long-range Strategic Planning Committee.

Treasurer—John Harris was not in attendance due to illness, but submitted the following Treasurer's Report and Budget Recommendations:

CASH BALANCE—JULY 1, 2002 \$25,086.38

RECEIPTS

Membership Fees	5,670.00
Institutional Fees	4,000.00
Library Subscriptions	2,460.00
Interest Earned, FirstStar Bank	83.38
Dividends Earned, PaineWebber Money Fund	260.65
Contributions	180.00
Annual Meeting Registrations and Meal Fees	3,041.58
Page Charges	900.00
<i>Journal</i>	70.00
TJAS Trust Fund	2,494.97
TOTAL RECEIPTS	19,160.58

TOTAL CASH AVAILABLE 44,246.96

DISBURSEMENTS

<i>Journal</i>	3,902.31
Tennessee Junior Academy of Science	10,845.40
Treasurer's Expenses	1,296.32
Travel	498.69
Dues/Fees	100.50
Science Fairs	1,800.00
Annual Meeting Expenses	3,419.39
Collegiate Division	900.00
Security Bond	100.00
Plaques	244.60
Web Site Maintenance	218.45
Auditor's Fee	990.00
AAAS	1,163.67
Publicity Committee	100.53
TOTAL DISBURSEMENTS	25,579.86

CASH BALANCE—November 11, 2002 18,667.10

Receipts	19,160.58
Disbursements	25,579.86

Cash Decrease -6,419.28

BREAKDOWN OF HOLDINGS

US Postal Service, Cookeville, TN	208.12
US Postal Service, Lawrence, KS	429.53
TTU Account	197.47
Checking Account, FirstStar Bank	1,131.83
Savings Account, FirstStar Bank	1,235.17
Money Market Fund, PaineWebber	15,464.98

TAS HOLDINGS—April 25, 2003 18,667.10

TJAS TRUST FUND (Vanguard Star Fund)

(9,240.619 shares owned as of 3/31/03)	
Account Value as of 09/30/02	128,721.82
Disbursements (Dividend Dist.) 12/21/02	2,494.97
Account Value as of 12/31/02	132,602.88
Account Value as of 03/31/03	130,200.32

LIFE MEMBERS TRUST FUND (PaineWebber)

Account Value as of 03/31/03 15,000.00

TOTAL VALUE OF HOLDINGS—

November 11, 2002 \$163,867.42

The Executive Committee passed a motion to accept the Treasurer's report. Treasurer Harris presented the following budget recommended for 2003–2004.

RECOMMENDED BUDGET FOR 2003–2004

	Projected Income (2003–2004)
Membership Dues	7,500.00
Institutional Members	4,000.00
Annual Meeting Fees	4,000.00
<i>Journal</i> Page Charges	3,000.00
Library Subscriptions	2,500.00
Interest/Dividends Earned	750.00
Contributions	150.00
TJAS Trust Fund	4,500.00
TOTAL	26,400.00

Amount Recommended (2003–2004)

Secretary	0.00
Treasurer	1,300.00
Junior Academy	12,000.00
<i>Journal</i>	10,000.00
Annual Meeting	4,000.00
Collegiate Division	900.00
Travel	750.00
AAAS Meeting	1,500.00
Audit Fee	1,000.00
Annual Dues/Fees	150.00
Insurance/Security	100.00
Plaques/Awards	200.00
Web Site Maintenance	200.00
Publicity	100.00
Science Fairs (VSP)	3,325.00
TOTAL	\$35,575.00

Treasurer Harris reported his concern that, due to statewide budget cuts, some institutions may cut their TAS institutional membership. He recommended raising TAS membership dues effective 2004 as follows: Regular membership, from \$20 to \$30; Life membership, from \$200 to \$300; and Student membership,

from \$10 to \$15. A motion to suspend the discussion of the proposed budget, including changes in membership dues, until the November Executive Committee meeting was approved.

Managing Editor—M. Gore Ervin discussed the following report:

“There were a total of thirteen papers submitted to the *Journal* in 2002. Six have been published (one each in 77:2 and 77:3, and four in 77:4), two will appear in 78:2, two are awaiting author revision, and three were withdrawn/rejected. There have been four papers submitted so far in 2003; two are being reviewed and two have been returned to the authors for revision.

The fall 2002 (77:4) and winter 2003 (78:1) issues will be published in May 2003. The spring 2003 (78:2) issue will follow in June with three to four manuscripts.”

Collegiate Division—Director Fred Matthews submitted the following information:

The Eastern Division meeting was held this spring at Pellissippi State Community College, Teresa Fulcher, coordinator. Thirteen papers from seven colleges were presented: Maryville College (7), Carson Newman College (2), University of Tennessee, Chattanooga (1), Roane State Community College (1), Lee University (1), University of Tennessee, Knoxville (1), Tennessee Wesleyan College (2). Fifty people attended.

The Middle Division meeting was held at Tennessee State University, hosted by E. Lewis Myles (Fred Matthews, coordinator). Fourteen papers were presented: Tennessee State University (11), Austin Peay State University (1), and David Lipscomb University (2).

The Western Division meeting was held at Union University, Wayne Wofford coordinator. Thirty-one papers were presented by students from four colleges: Union University, Rhodes College, University of Memphis, and Christian Brothers University. Sixty-one people attended.

Junior Academy of Science—Director Jack Rhoton discussed the following report:

“The 2003 spring meeting of the Tennessee Junior Academy of Science (TJAS) met on Friday, April 25, 2003 at Pearl Cohn High School in Nashville, Tennessee. A total of 27 students were invited to present their research papers. This year 110 students were involved in TJAS research throughout the state. The top TJAS research papers will be published in the upcoming issue of the *Handbook and Proceedings of the Tennessee Junior Academy of Science*. The winners of the top two papers each received \$500 and the six other top winners each received \$200. In addition, the six top winners each received \$50 from the Tennessee Association of Science Department Chairs (TASDC).

“During the April meeting a framed certificate and a small honorarium (\$100) was presented to an outstanding secondary science teacher from each region of the three divisions of the state. The recipients of this year’s awards are as follows: Virginia Cooter (Physical Science, Earth Science, and Geology), North Greene High School, Greeneville; Barry Farris (Chemistry, Physics, and Mathematics), Columbia Academy, Columbia; Pamela Cooper (Biology and Advanced Biology), North West High School, Clarksville. These TAS Outstanding Secondary Science Teacher awards recognize teachers for their outstanding contribution to science teaching and for stimulating and inspiring students to an active interest in science.”

In response to questions from the Executive Committee, Director Rhoton explained the process for judging student papers by three judges who determine the winners.

Electronic Communications—Director James Howard re-

ported on the status of the new TAS website. Membership forms are on the site and can be downloaded and printed for mailing with dues to TAS Treasurer John Harris. Director Howard expects to have registration forms for the November meeting ready this fall. The membership database is currently being updated. Other items will be added as they are sent to Director Howard (jhoward@mtsu.edu). Director Howard requested clear descriptions of programs that may be added as links on the TAS website.

After discussion related to a request to list non-TAS members as participants in TAS programs, a motion to require that individuals listed in TAS service programs, such as the Visiting Scientist Program and Networks, be TAS members, was approved.

Visiting Scientist Program—Director Michael Daley submitted the following written report:

“The Shelby/Memphis City Science Fair was held the week of March 24th. Judging was done on March 25th. I have both the certificates and the checks and will deliver them to each student at her/his school. Also, I presented an overview of the Visiting Scientist Program (VSP) at the Unity in Science Conference sponsored by the Memphis Organization of Science Teachers (MOST) program on Saturday, March 25, 2003. This presentation consisted of slides and information explaining the TAS VSP and how teachers can access the program.

“Tennessee Academy of Science, Visiting Scientist Program, Experiment in Progress: What is it? An outreach program for scientists selected because their area of expertise matches the ongoing curriculum and they are willing to briefly visit the classroom. Hypothesis: for the classroom time involved, students will benefit significantly. Why should it be done? Students are required to work very hard to master subjects in science. However, the majority have a vague abstract understanding as to what career path they might want to pursue. Classroom interactions with scientists might help them obtain a better understanding of the science being studied and the problems that scientists/engineers work on. How will the program be implemented? Contact Professor Michael Daley at mdaley@memphis.edu or phone: 901-678-3254. He will contact a scientist who in turn will contact the requesting teacher. All further communications will be between the teacher and the visiting scientist. Experimental observations: Survey forms should be completed after a visit. A one-page Teacher Survey will be completed by the requesting teacher; and a one-page Visiting Scientist Survey will be completed by the visiting scientist. Results: Results of the proposed experiment, both the good and the bad, will be reported at a future MOST meeting and possibly at a TSTA meeting.

“The focus of schools was on the Gateway exams this semester, so no visits have been accomplished to date. I am working towards trying to arrange a few visits in May before the school term ends for summer break.”

A motion to accept Director Daley’s report passed.

REPORTS FROM COMMITTEES

Education Committee—Chairperson Cindi Smith-Walters discussed the following report:

“Current members of the committee are as follows: Linda Jordan, Tennessee State Dept. of Education; Bob Marlowe, University of Tennessee, Chattanooga; Dick Rairdon, Oak Ridge National Laboratory; Jack Rhoton, East Tennessee State University; Kim Cleary Sadler, Middle Tennessee State University; and David Wilson, Vanderbilt (ret.).

"Initiatives since last meeting: Two articles submitted to Becky Ashe, TSTA's newsletter Chair; TSTA program fliers (science fair information, Networks, etc.) were provided at the TSTA meeting; Visited with David Wilson regarding funds for a textbook reviewer training program and it was decided that we would not pursue that avenue at this time.

"Ideas for next six months: Contact committee members to confirm that they want to continue and/or get names of other members willing to serve. Solicit suggestions from committee members regarding initiatives/programs to strengthen the organization and outreach. Provide bi-annual article of some type to TSTA newsletter."

Chairperson Smith-Walters requested that ideas and suggestions be sent to any Education Committee members. State Science Supervisor Linda Jordan remarked that a need exists for science content review of middle school and elementary school textbooks.

Publicity Committee—Chairperson Teresa Fulcher submitted the following written report:

"Press Releases and photographs were sent to the following papers in December 2002 regarding the TAS member awards presented at the November 2002 meeting: Charles Biggers—Distinguished Service Award, The Daily Helmsman and the The Commercial Appeal (Photograph courtesy of Dr. Charles Biggers); Sarah Swain—Distinguished Service Award, The Lebanon Democrat, The Tennessean, and The Daily News Journal (Photograph courtesy of Sally Swain); Kathryn Gemmer—Distinguished Secondary School Science Teacher, Elizabethton Paper and the Johnson City Press (Photograph courtesy of Jim Sledge, ETSU), Gary Wulfsberg—Distinguished University Scientist Award, The Tennessean and The Daily News Journal (Photograph courtesy of Jim Howard).

"Press Releases regarding the TAS member awards were submitted to Jim Howard and Gore Ervin in December 2002 for inclusion on the TAS website and in the *Journal of the Tennessee Academy of Science*.

"Based on the list submitted by Dr. Michael Redding, 34 certificates were created and mailed to all student winners of the poster and oral competition at the November 2002 Annual Meeting. Dr. Redding submitted the list of recipients to Gore Ervin for inclusion in the *Journal of the Tennessee Academy of Science*.

"Established communication with regional coordinators regarding the TAS Science Fair Awards. Certificates for student winners were created and mailed to coordinators of the Memphis/Shelby County Science Fair, the Middle Tennessee Science and Engineering Fair, and the Southern Appalachian Science and Engineering Fair. Following is the list of Student Recipients of the TAS Regional Science Fair Awards, 2003 compiled to date:

1. Memphis-Shelby County Science Fair, Memphis. TAS Representative—Dr. Michael Daley.

Middle School Division

First place: Ryan Johnson. Aerodynamics: How Does It Effect Automobiles. White Station Middle School.

Second place: Kerry Spence. Does Your Dominant Hand Correspond with Dominant Eye, Ear, and Foot. Central High School.

Third place: Ginni Fischer. Material Elasticity and Bridge Strength. St. Mary's Episcopal.

High School Division

First place: Tara Skelley. As The Wheels Turn. Hutchinson School.

Second place: Leah Miller. Fuel Cell. Lausanne.

Third place: Alexandria Scarbrough. The Reaction of Paramecium to Disruptions in Environments. Lausanne.

2. Middle Tennessee Science and Engineering Fair, Vanderbilt University. TAS Representative—Dr. C. Steven Murphree.

Physical Science Division

First place: Anita K. Pai. Martin Luther King, Jr. Magnet High School.

Second place: Kapil Amarnath. Brentwood High School.

Honorable Mention: Robert Thomas Zelle. (no school given).

Biological Science Division

First place: Group Project: Hannah Howard and Danielle LaVone. Martin Luther King Jr. Magnet High School.

Second place: Ankita Munjal. Martin Luther King Jr. Magnet High School.

Honorable Mention: Brendan Rivers. Martin Luther King Jr. Magnet High School.

Biochemistry and Molecular Biology Division

First place: Azza Gamelseed. Martin Luther King Jr. Magnet High School.

Second place: Yiliu Chen. The Harpeth Hall School.

Honorable Mention: Ansley Paige Lance. Franklin Road Academy.

3. Southern Appalachian Science and Engineering Fair, Knoxville. TAS Representative—Teresa Fulcher.

Junior Division

Biological Science: Katie Sloop. A Honey of a question—Fall Nector Sources in East Tennessee. St. Mary's School.

Physical Science: Phillip Glandon. Exploring a Chemical Reaction. Homeschool.

Senior Division

Biological Science: John Widloski. Mosquitoes vs. The Lethal Dose. Maryville High School.

Physical Science: Elizabeth Van Fleet. Do Lichens Serve As Indicators of Pollution in the Great Smoky Mountain National Park? Maryville High School.

4. Upper East Tennessee Science Fair, Johnson City. TAS Representative—Dr. Jack Rhoton.

Biological Science: Mary Lyle. Stream Chaser. Unicoi Middle School.

Physical Sciences: Jenny Maier. Impact of Shopping Center Construction on a Stream Ecosystem. Indian Trail School.

Chairperson Fulcher also reported that she had created a "Publicity Committee Operations Manual" to pass on to the next publicity committee chairperson. Following is an overview from that manual describing activities of the publicity committee from late fall 1999–spring 2003.

"Press Releases for the November Annual Meeting:

A. The Publicity committee submits press releases to media statewide regarding the TAS annual meeting. In the past, this has been done in October and November. Information is sent to all daily newspapers, and TV and radio stations have been contacted in the city of the meeting.

1. Included in this section are addresses for newspapers, and additional media that have been contacted in the past.

2. The press release is written by the publicity committee based on information supplied by the president regarding the dates, and keynote speaker for the meeting. Examples of past press releases are included in this section.

B. Occasionally, we have tried to target particular groups that

might be interested in the annual meeting. Prior to the Belmont meeting, letters were sent to all Tennessee school district superintendents (keynote address was regarding improving math and science in schools). Prior to the ETSU meeting, E-mails were sent to Geology faculty across the state informing them of the meeting. Names and E-mail addresses were obtained by doing school web site searches.

1. Samples of "target" letters are included. Note: It is the opinion of the former chairperson that e-mail notification for the TAS annual meeting be explored and expanded.

"Photographs of the Annual Meeting:

The publicity committee has attempted to take photographs of the November annual meeting. Priority photographs have been of the annual TAS distinguished award winners and keynote speakers. Additional candid shots of the meeting have been included. These photographs are then included in press releases regarding the distinguished award winners, and are submitted to the TAS Webmaster, and to the *Journal* Editor. Included in this section are negatives and extra photographs of past meetings.

"Press Releases for winners of TAS Distinguished awards:

Immediately following the November meeting, the publicity committee writes press releases to announce the winners of the TAS member awards. These awards include: Distinguished College/University Scientist Award, Industrial Scientist Award, Distinguished College/ University Teacher Award, and the Distinguished Secondary School Science Teacher Award (In the past, Jack Rhoton has written the press release for this award).

The publicity committee has tried to obtain photographs of the recipients, and send the announcement to their local paper. This information also is submitted to the TAS *Journal* editor for inclusion in the TAS *Journal*. Included in this section are copies of some previous press releases regarding TAS awards.

"Certificates for Student Oral and Poster Competition Winners:

Immediately following the annual November meeting, the publicity committee has created and mailed certificates to all student winners of the poster and oral competition from the November meeting. For the past two years, Michael Redding has done a fantastic job of compiling and sending the list of names of student winners, and the certificates are created and sent back to schools or to individual students. Included in this section are lists of student recipients and sample certificates. Also included in this section is the catalog from Baudeville. We have ordered certificate paper and seals from Baudeville in the past.

"State Regional Science Fair Liaison:

The publicity committee has acted as liaison with TAS members involved in the seven regional science fairs across the state to ensure the names of the student winners are documented and certificates are created and sent to student winners. TAS members serving as representatives of each fair serve to ensure that the TAS awards are presented. The Academy approved \$400.00 to be used for TAS awards for each regional science fair. Names of student winners are submitted to the TAS *Journal* Editor for inclusion in the *Journal*. A reminder message is sent out in early March. Most fairs are held in late March and early April. The following members currently serve as the TAS representatives for the regional science fairs: Upper East Tennessee Science Fair, Dr. Jack Rhoton; Memphis-Shelby County Science Fair, Dr. Mi-

chael Daley; Middle Tennessee Science and Engineering Fair, Dr. Steve Murphree; Chattanooga Regional Science and Engineering Fair, Ginny Reese (director); Cumberland Plateau Regional Science Fair, Dr. John Harris; Southern Appalachian Science and Engineering Fair, Teresa Fulcher; and Jackson Regional Science Fair, Dr. Andy Sliger.

Each representative should submit the following information: Dates of the fair, Names and school of student winners, Title of winning projects, Age Category of Student winner, and Discipline Category of project.

"Miscellaneous Activities:

The publicity committee worked on the TAS brochure that was used in publicity mailings and press releases. The brochure also has been used in trying to solicit new membership. A copy of the current brochure is included.

The publicity committee submitted a publicity article to *The Tennessee Conservationist* with some historical information on the Academy. A copy of the article is included.

The publicity committee attended the East Tennessee Science Teachers Annual Meeting in 1999 in Knoxville, and set up a booth to distribute information on the Academy and solicit membership."

President Karen Kendall-Fite commended Chairperson Fulcher for her excellent service to TAS. Other members also praised her accomplishments in expanding TAS publicity. President Kendall-Fite welcomed Mandy Carter-Lowe to the Executive Committee as the new Publicity Committee Chairperson.

A motion by Jack Rhoton to formally recognize Publicity Chairperson Fulcher's service with a certificate of appreciation to be presented at the 2003 annual meeting was approved.

OLD BUSINESS

Michael Redding, TAS Meeting Coordinator, and TSTA representatives Charles Baldwin, Barry Farris, and Ruth Woodall discussed plans for the TAS/TSTA joint conference to be held in Nashville, November 2003. Ruth Woodall commended TAS Past President Jack Rhoton and TSTA member Terry Lashlee for their efforts to make the joint meeting a reality. The meeting theme proposed by TSTA is "Making the Connection: Building Partnerships for Success". To facilitate meeting arrangements "Point People" from both organizations were identified as follows:

Committee	TAS Member	TSTA Member
Program	Mike Redding	Pat Carpenter
Finances	John Harris	Barry Farris
Exhibits	Steve Murphree	Stan Peppenhorst
Awards	Jack Rhoton	Virginia Cooter
Registration	John Harris	Barry Farris
Local Excursions	Steve Murphree	Ruth Woodall
Poster Sessions	Karen Kendall-Fite	Pat Carpenter
	Al Hazari	Stan Peppenhorst
		Geraldine Farmer
General Sessions	Mike Redding	Charles Baldwin
		Glyn Burton
		Ruth Woodall

Meeting features being planned include content focused pre-conference workshops, Thursday evening reception, exhibits by non-profit organizations as well as commercial vendors, a combined conference program to be available on TAS and TSTA websites (traditional TAS program also will be mailed to TAS

members), traditional TAS paper and poster sessions as well as combined sessions, a plenary speaker with broad science education appeal, TAS annual business meeting, Saturday AM combined awards breakfast, and local excursions for members and their families.

TSTA will serve as the fiscal agent for the meeting since it holds the site contracts. Expenses will be portioned on a pro-rata basis. A formal document of fiscal agreement will be prepared and signed by appropriate TAS and TSTA officers to clearly define all meeting expenses and financial obligations.

State Department of Education Science Consultant Linda Jordan discussed the timeliness of the joint meeting in light of the recent "No Child Left Behind" initiative. Recent legislation requires testing in science and social studies subject areas in addition to math, language arts, and reading. She also noted teacher interest, especially among middle school teachers, in content courses to enable them to demonstrate the background of knowledge necessary to meet the "highly qualified" teacher designation.

Martin Stewart suggested David Wilson's recent report on textbook errors be considered as a focus in one of the common TAS/TSTA sessions. He also pointed out the need for careful planning for presentation equipment in breakout sessions.

The work of an ad hoc committee to study the role of the Research Committee was reported by Gore Ervin and Martin Stewart. The Research Committee is a TAS constitutional committee that historically has awarded certificates to student presenters/posters at annual meetings. In recent years that function has been handled by the Publicity Committee. The ad hoc committee recommends that, until such time as different duties dictate the need for separate chairpersons, the same person will serve simultaneously as Publicity Committee Chair and Research Committee Chair. A motion to that effect was approved by the Executive Committee.

With the retirement of David Wilson, Industry/Government Committee Chairperson, a new chairperson is needed for that standing committee. Also, the Membership Committee needs a chairperson and regional coordinators. President Kendall-Fite requested help from the Executive Committee, and TAS membership, to find members willing to serve on these committees.

President Kendall-Fite announced that upon the retirement of John Harris as TAS Treasurer, expected next year, Steve Murphree has agreed to serve as TAS Treasurer. He will be officially nominated at the appropriate annual meeting. Murphree expects to work closely with Treasurer Harris in the upcoming months to learn the duties of treasurer.

NEW BUSINESS

Managing Editor Gore Ervin presented a draft of a TAS seal designed by TAS member Philip Mathis (MTSU) for approval by the Executive Committee. The committee agreed to display the proposed seal to the membership at the 2003 annual meeting and solicit suggestions for completing the design (inside an outline state of Tennessee).

Future meeting sites are planned for 2004 and 2005. The 2004 annual meeting will be held at Columbia State Community College, Columbia, Tennessee. The 2005 annual meeting will be held on the campus of the University of Tennessee-Martin, Martin, Tennessee. A site in the middle region of the state will be needed for the 2006 meeting.

President Kendall-Fite adjourned the April meeting of the 2003 TAS Executive Committee at 9:55 PM CST.

TENNESSEE ACADEMY OF SCIENCE EXECUTIVE COMMITTEE MEETING 14 November 2003

The Executive Committee of the Tennessee Academy of Science (TAS) was called to order by President Karen Kendall-Fite at 8:10 PM CST in the Thoroughbred Boardroom of the Cool Springs Marriott Convention Center, Franklin, Tennessee. Attendees were Past President and Director of the Junior Academy Jack Rhoton, President-elect Michael Redding, Treasurer John Harris, Secretary Sarah Swain, Managing Editor Gore Ervin, Director of Visiting Scientist Program Michael Daley, Director of Electronic Communications James Howard, Research and Publicity Committee Chairperson Mandy Carter-Lowe, Financial Oversight Committee Chairperson Andrew Sliger, Members-at-large Stephen Wright, Michael Gibson, and Al Hazari.

President Kendall-Fite welcomed guest Dr. Charles Baldwin, Tennessee Science Teachers Association (TSTA) President who spoke briefly about the TAS/TSTA joint meeting in progress at the Convention Center. Dr. Baldwin thanked the Executive Committee for the opportunity to hold the joint meeting and outlined the benefits of such a meeting to both organizations. Special thanks were expressed to Dr. Jack Rhoton, TAS Past President, whose ideas and efforts made the joint meeting a reality.

Minutes of the April 2003 Executive Committee meeting had been sent to committee members by Secretary Swain prior to today's meeting. A motion to approve the minutes passed.

REPORTS FROM OFFICERS AND DIRECTORS

President-elect and Meeting Coordinator—Michael Redding reported on the status of the current meeting. Ninety-five oral presentations are scheduled, compared to seventy-eight at the 2002 annual meeting. Numbers of posters for 2003 (23) are similar to those presented at the 2002 meeting (22). The Reelfoot Lake Symposium, a special event for the 2003 meeting, scheduled 10 oral presentations and was considered a big success. The two TAS-sponsored workshops were well attended. The workshop titled, "A Hands-on Approach to Teaching Biotechnology," was organized by Drs. Stephen Wright, Rebecca Seipelt, and Cindy Taylor of Middle Tennessee State University (MTSU). Dr. Charles R. McGhee of MTSU presided over the workshop titled, "History and Progress of Evolutionary Thought in Science". Meeting Coordinator Redding offered special thanks to all the workshop organizers and to James Howard for his work on the TAS website. Discussion followed related to hosting a symposium at each annual meeting in the future. To generate interest and participation, the committee would focus the symposia on topics unique to Tennessee. Cedar glade ecology and Tennessee River ecology were mentioned as examples.

Treasurer—John Harris submitted the following report:

CASH BALANCE—JULY 1, 2003	\$25,415.58
RECEIPTS	
Membership Fees	3,425.00
Institutional Dues	7,000.00
Library Subscriptions	1,050.00
Interest Earned, US Bank	4.25

Dividends Earned, UBS Money Market Fund	25.55
Contributions	155.00
Annual Meeting Registration and Meal Fees	2,655.00
TSTA Dues Collected	105.00
Page Charges	30.00
Closeout of Murfreesboro Bulk Mail Acct.	12.84
TOTAL RECEIPTS	15,962.64
TOTAL CASH AVAILABLE	32,768.43
DISBURSEMENTS	
<i>Journal</i>	10,886.31
Tennessee Junior Academy Science	4,427.80
Treasurer's Expense	863.02
Travel	283.52
Annual Meeting Expenses	2,094.85
Annual Meeting Registration and Meal Fees	2,655.00
TSTA Dues Disbursed	105.00
Plaques and Awards	244.60
TOTAL DISBURSEMENTS	21,560.10
CASH BALANCE—November 10, 2003	11,208.33
Receipts	15,962.64
Disbursements	21,560.10
Cash Decrease	-5,597.46
BREAKDOWN OF HOLDINGS	
US Postal Service, Cookeville, TN	226.98
US Postal Service, Lawrence, KS	191.14
TTU Account	89.56
Checking Account, US Bank	1,881.18
Savings Account, US Bank	8,282.24
Money Market Fund, UBS	537.23
TAS HOLDINGS—November 10, 2003	11,208.33
TJAS TRUST FUND (Vanguard Star Fund)	
(9,240.619 shares owned as of 9/30/03)	
Account Value as of 03/31/03	130,200.32
Disbursements (Dividend Dist.) 6/23/03	1,386.09
Account Value as of 6/30/03	144,615.69
Account Value as of 9/30/03	148,589.88
LIFE MEMBERS TRUST FUND (UBS)	
Value of Account as of 11/10/03	15,000.00
TOTAL VALUE OF HOLDINGS—	
November 10, 2003	\$174,798.21

In the category of institutional dues, University of Tennessee at Chattanooga, Rhodes College, and University of the South recently reactivated their memberships, and East Tennessee State University is a new institutional member, according to Treasurer Harris. A motion to accept the Treasurer's report was approved.

Treasurer Harris asked the committee to consider ways to increase revenue. Total holdings are substantial due to Vanguard investments and the Life Members Trust Fund. However, liquid assets continue to decline each year that disbursements exceed receipts, as has been the trend in recent years. Twelve years have passed since the last increases in membership dues and fees. The Executive Committee agreed to reach a decision regarding dues and fees increases at the April 2004 meeting. No changes will affect 2004 memberships or charges. The Executive Committee also requested that future Treasurer Reports show Visiting Scientist Program science fair expenditures, currently included with Junior Academy expenses, as a separate item in the report.

CASH RECEIPTS AND DISBURSEMENTS FOR YEAR ENDED JUNE 30, 2003

RECEIPTS:	
Membership Dues	\$11,110.00
Dividends-Vanguard	3,881.06
Annual Meeting Fees	2,770.00
Library Subscriptions	2,580.00
Journal Page Charges	2,150.00
Interest Earned	419.51
Contributions	180.00
Misc. Income	471.58
TOTAL RECEIPTS	\$23,562.15
DISBURSEMENTS:	
Tennessee Junior Academy of Science	15,727.60
Printing and Publications	4,176.08
Annual Meeting	3,419.39
Science Olympiad	1,953.82
Treasurer's Office Expense	1,813.11
AAAS Expenses	1,163.67
Accounting Fee	990.00
Collegiate Division	900.00
Board Meeting	266.32
Plaques	244.60
Web Site Expense	218.45
Secretary's Office Expense	137.16
Annual Dues/Fees	100.50
Insurance Bond	100.00
Bank Charges	37.36
Misc.	300.53
TOTAL DISBURSEMENTS	\$31,548.59
CASH DECREASE FROM OPERATIONS	[\$7,986.44]
CASH BALANCE—JULY 1, 2002	\$182,513.05
VANGUARD-UNREALIZED GAIN	\$2,494.97
CASH BALANCE—JUNE 30, 2003	\$177,021.58

SUMMARY OF CASH ACCOUNTS June 30, 2003

US BANK	
Cookeville, TN 38501	
NOW Account	3,733.68
Savings Account	7,347.81
TOTAL	\$11,081.49
TENNESSEE TECHNOLOGICAL UNIVERSITY	
Cookeville, TN 38505	
Agency Account	\$106.09
VANGUARD FINANCIAL CENTER	
Valley Forge, PA 19482-2600	
Vanguard Star Fund	\$144,615.69
US POSTAL SERVICE	
Postage Account-Kansas	485.67
Postage Account-Cookeville	202.12
Postage Account-Murfreesboro	12.84
TOTAL	\$706.63
PAINÉ WEBER	

Cookeville, TN 38501

Cash Account \$20,511.68

CASH BALANCE—June 30, 2003 \$177,021.58

Receipts and disbursement records of TAS for fiscal year ended June 30, 2003 were audited by James F. McKinnie, MBA, Cookeville, Tennessee and determined to be in order and well maintained, according to letters from Mr. McKinnie and TAS Auditing Committee, Eugene A. Kline, Chairman. In his 10 November 2003 letter to TAS President Kendall-Fite, Chairman Kline enthusiastically commended Dr. John Harris, TAS Treasurer, "for his effort and time in doing a meticulous job keeping the financial records for the Academy over many years." A motion to accept the auditor's report was approved.

Managing Editor—M. Gore Ervin presented the following report:

"Three *Journal* issues have been published (78:1, 78:2, and 78:3) so far during 2003. These three issues contain a total of five manuscripts and 100 printed pages. The fall (October) 2003 issue contains four manuscripts and is ready to go to press.

"There have been a total of eleven manuscripts submitted thus far in 2003. One has been published (in 78:3), four are in press in 78:4, one will appear in 79:1 (January 2004), one has been returned for revision (minor), and two are under review. One manuscript was rejected.

"I have decided to stop trying to publish the meeting information in the January issue and will relegate all Academy proceedings, awards, and abstracts to the April 2004 issue. This will allow publication of the January issue in a timely manner and will not back-up publication of subsequent issues. The January 2004 issue will contain at least three manuscripts.

"The manuscripts submitted this year have been of high quality and some have been rather large. In fact, the total number of *Journal* pages published this year (100 for 78:1–3) will be larger than in recent volumes (Vol. 77:96 pages; Vol. 76:116 pages; Vol. 75:96 pages; Vol. 74:112 pages; Vol. 73:124 pages; Vol. 72:88 pages). However, the total number of submissions has not grown as expected. A graph summarizing manuscript submissions for more than a decade is included below."

Managing Editor Ervin asked Executive Committee members to encourage their colleagues to submit manuscripts for publication in the *Journal*. Following discussion of *Journal* expenses

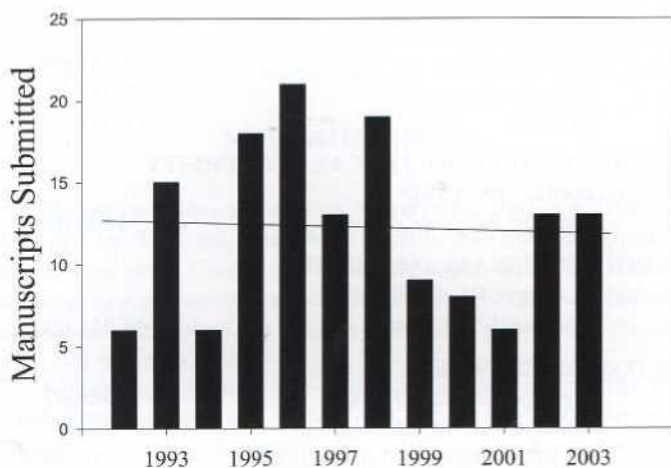


FIG. 1. Total annual manuscript submissions to the *Journal of the Tennessee Academy of Science*, 1992–2003.

and page charges, a motion to set page charges at \$90 passed. Managing Editor Ervin will research the feasibility of placing ads in the *Journal* and report to the Executive Committee in April 2004.

Collegiate Division—Director Fred Matthews was not in attendance and did not submit a report.

Junior Academy of Science—Director Jack Rhoton discussed the following report:

"The 2003 annual meeting of the Tennessee Junior Academy of Science (JTAS) was held on Friday, April 25, 2003, at Pearl Cohn High School in Nashville, Tennessee. One hundred and ten students, from throughout the state, participated in the TJAS 2003 program. Prior to the April 25th meeting, a panel of readers selected twenty-seven student papers for presentations at the annual meeting. The panel of judges during the annual meeting selected two top presenters. They are: Jennifer Harper and Valerie Friedman (co-authors), Jefferson County High School, Dandridge, and Shaleen Cholera, White Station High School, Memphis. The title of Harper and Friedman's paper was "Polygenic Inheritance in Mutated *Ceratopteris richardii*." Ms. Cholera's paper was entitled "Adaptive Responses of *Staphylococcus aureus* to IL-1 and Heat Shock: Implications in Bacterial Pathogenesis." Both papers were published in the *Handbook and Proceedings of the Tennessee Junior Academy of Science*, along with five other papers of the top seven winners. Also, an abstract of each of the presenters at the annual meeting was printed in the Handbook. A copy of the Handbook was sent to all High School science departments in Tennessee as identified in the Tennessee State Department of Education's Directory of Public Schools, Approved Non-public, and Special State Schools.

"Phillip C. Redding, Cookeville High School, will be representing TAS at the American Junior Academy of Science in Seattle, Washington in February 2004. The title of Phillip's paper is "Disproportionate Growth Rates of Root Tissue in Maize, *Zea mays*." He also presented his paper at the International Science and Engineering Fair in Cleveland, OH.

"It is customary each year for the TJAS to recognize three outstanding science teachers, one from each region of the state. During the Spring 2003 TJAS meeting, a framed certificate and a small honorarium (\$100) was presented to the following recipients: Virginia Cooter (Physical science, Earth science, and Geology), North Greene High School, Greeneville; Barry Farris (Chemistry, Physics, and Mathematics), Columbia; and Pamela Cooper (Biology and Advanced Biology), Northwest High School, Clarksville. These outstanding secondary science teacher awards recognize teachers for their outstanding contribution to science teaching and for stimulating and inspiring students to an active interest in science."

"Ms. Constance Brown has been named the recipient of the 2003 Tennessee Academy of Science Distinguished Science Teacher Award. Brown, who teaches at McEwen High School, McEwen, Tennessee, will receive the award on November 15, 2003, during the joint meeting of the TAS/TSTA at the Cool Springs Marriott in Franklin, Tennessee. Ms. Brown teaches Chemistry, Physics, Physical science, and scientific research at McEwen High School. Begun in 1997, the awards program is designed to recognize individuals who demonstrate excellence in science teaching. This award is given annually to one Tennessee science teacher who has made significant contributions to the teaching and learning of science. In addition to the recognition, Ms. Brown will receive from TAS a \$500 cash award, a plaque, and a certificate. (A press release of Ms. Brown's award has been

prepared and submitted to local newspapers.) The criteria for the award are based on the candidate's contributions to the teaching profession, education record, involvement in professional organizations, special awards or special recognition, and letters of support."

Director Rhoton provided the following list of recipients of the TAS Distinguished Science Teacher Award:

Year	Recipient	School	City
1997	Alan Redmond	John Sevier Middle School	Kingsport
1998	Linda Phelps	Camden Central High School	Camden
1999	Jane Whitaker	Lenior City High School	Lenior City
2000	Pat Carpenter	McDonald High School	Mohawk
2001	Gary Barrigar	Elizabethton High School	Elizabethton
2002	Kathryn Gemmer	University School	Johnson City
2003	Constance Brown	McEwen High School	McEwen

Electronic Communications—Director James Howard discussed the following report:

"The searchable database of members and "Network Scientists" on our web site became operational in late spring but all the links to it were not updated until this fall. Thanks to Dr. David Kesler for catching that oversight. Recently, it was pointed out that some committee membership information on the site is out of date. Since that information will be changing soon, I have opted to update it then. All chairs of committees should send the committee membership contact information to me as well as to the secretary.

"A request was made to be able to register for the annual meeting online, but that will require some way to make payment electronically. I'll work with the new treasurer to see how to implement that.

"People creating "forms" to be posted on the web site are requested to use the "form" feature within MS Word as well as appropriate use of tabs to make the filling in of the forms easy."

After discussion related to online registration and payment, Executive Committee members agreed that the goal for next year would be online submissions, with online registration and payment being a goal for the following year.

Visiting Scientist Program—Director Michael Daley discussed recent activities. He provided copies of a Visiting Scientist Program promotional flier, "Experiment in Progress", published in a recent TSTA newsletter. The flier provides teachers with a description of the goals of the program and contact information for those who wish to participate. Participating teachers and scientists are asked to complete brief surveys, the results of which will be reported at future TAS and TSTA meetings.

Director Daley explained that regional science fair judges also serve as area coordinators for the Visiting Science Program across the state. He would like feedback from teachers and scientists related to the success and effectiveness of the program. The program will be promoted in future TSTA newsletters.

State Department of Education—Science Consultant, Linda Jordan, was not in attendance and did not submit a report.

REPORTS FROM COMMITTEES

Audit Committee—Chairperson Eugene Kline submitted the following report:

"An audit was made of the Academy's finances as required by the Academy for the year ending 2003 by Mr. James McKinnie, MBA, Cookeville. He examined the receipts and disbursements records and found everything in order and the ac-

counting system well maintained. I recommend approval of the financial report based upon this audit. I am sure the other two members of the Audit Committee, Drs. Robert Martin and David Yarbrough agree with my recommendation as it has been made by the professional accountant who has served the Academy well in past years. Both Drs. Martin and Yarbrough have retired and are no longer on campus. However, I am sure they enthusiastically join me in commending Dr. John Harris, Treasurer, for all his effort and time in doing a meticulous job at keeping the financial records for the Academy over many years."

Education Committee—Chairperson Cindi Smith-Walters did not submit a report.

Publicity and Research Committee—Chairperson Mandy Carter-Lowe discussed the following report:

"In October and November of 2003 press releases were sent to 29 daily newspapers in Tennessee announcing the 113th annual meeting to be held at the Franklin Marriott Hotel/Cool Springs Conference Center in Franklin, Tennessee. In addition, press releases were sent to Nashville Public Radio, WSMV-Channel 4, WTVF-Channel 5, and WKRN-Channel 2. A database of email addresses was compiled for newspapers, radio, and TV stations and is included with this report.

"Former chairperson, Teresa Fulcher, compiled a Publicity Committee Operations Manual. The notebook details committee operations over the last four years and will serve as a source of information for future proceedings. In addition to the notebook, a supply of certificate paper was received from Fulcher."

Chairperson Carter-Lowe asked Executive Committee members to advise her of any address changes for newspapers and/or TV and radio stations in their local areas. Copies of the press release announcing the annual meeting and copies of media outlet email addresses were distributed to Executive Committee members. Throughout the current joint meeting Chairperson Carter-Lowe will be taking photographs for publication on the TAS website and in the *Journal*.

Fellows Committee—Chairperson Charles R. McGhee reported via Secretary Swain that no Fellow nominations were received by the committee.

Long-range Strategic Planning Committee—Chairperson George Murphy. Long-range Strategic Planning Committee member, Andrew Sliger, reported that the committee continues to discuss long-term initiatives. No new initiatives are recommended at this time.

Necrology Committee—Chairperson Alexander Wells. The recent deaths of long-time Academy members Dr. Christopher Keim, TAS Fellow, 1960 TAS President, Oak Ridge National Laboratory, and Dr. James Deck, Department of Biology, University of Tennessee at Martin, were reported.

Nominating Committee—Chairperson Jack Rhoton offered the following slate of officers for approval by the Executive Committee: Ms. Sarah Swain, Secretary; Dr. Steven Murphree, Treasurer; Dr. Stephen Wright, President-elect. A motion to approve the slate passed unanimously.

Resolutions Committee—Chairperson Sallie Noel provided the following Resolution of Appreciation (read and approved at the Annual Business Meeting):

"Whereas, the Tennessee Academy of Science in conjunction with the Tennessee Science Teachers Association, is enjoying the most pleasant, profitable, and well organized series of meetings at the Cool Springs Conference Center of the Franklin Marriott Hotel; and

Whereas, the success of these meetings has resulted mainly

from the efforts of the officers of the respective sections; the Local Arrangements Committee composed of Dr. John Harris, TAS Presidents Karen Kendall-Fite, Dr. Steve Murphree, Dr. Jack Rhoton, and Dr. J. Michael Redding; the TSTA Planning Committee, President Dr. Charles Baldwin, Mr. Barry Farris, Ms. Patricia Carpenter, Ms. Ruth Woodall, and Dr. Al Hazari; from the leadership of TAS President-elect Dr. J. Michael Redding, TAS President Ms. Karen Kendall-Fite, and TAS Past President Dr. Jack Rhoton; and from the recognition given the meetings by the press, television, and radio stations;

Be It Resolved, therefore, that the Tennessee Academy of Science expresses its sincere appreciation to these and all others who contributed to the success of the meetings."

OLD BUSINESS

Dr. Charles Baldwin, 2003 TSTA President, addressed the Executive Committee on the value and success of the TAS/TSTA joint meeting at the beginning of this Executive Committee meeting. His comments are summarized earlier in these minutes.

Executive Committee member and Managing Editor Gore Ervin reported that a drawing of the proposed TAS seal was displayed for meeting attendees to view. TAS members are being encouraged to offer suggestions to complete the design. A seal, or other TAS logo, will help establish TAS identity and recognition statewide and beyond.

A brief discussion related to membership concerns will continue at the April 2004 Executive Committee meeting. President Kendall-Fite expressed interest in identifying "point people" on each campus to help generate interest in TAS membership and participation.

NEW BUSINESS

President Kendall-Fite introduced and officially welcomed new Executive Committee members Dr. Al Hazari (University of Tennessee at Knoxville), 2004–2006 Member-at-large and Dr. Michael Gibson (University of Tennessee at Martin), 2003–2005 Member-at-large.

Mr. Ken Nafe, Tennessee Department of Environment and Conservation, delivered a presentation on the department's hazardous waste pilot program to the Executive Committee. The pilot program is part of the Tennessee Department of Environment and Conservation Green Schools Program and addresses issues of science laboratory safety, chemical disposal, legal liabilities, potential for terrorism or pranks. Four schools selected to participate in the pilot program were provided guidelines on

science laboratory safety and chemical inventory, storage, and disposal. Chemical wastes were removed from the participating schools. Conclusions from the pilot program included the following: 1) schools need help complying with OSHA standards; 2) most schools need to develop chemical inventories and adequate storage and disposal plans; 3) schools need to budget these needs and establish cost effective cooperative contracts with other schools; 4) similar concerns apply for disposal of computers, art supplies, sharps, pesticides, and other hazardous materials.

Mr. Nafe appealed to the TAS membership to become involved in the education component of this effort as advisors in local schools, by establishing mentor relationships, by offering workshops for secondary school teachers and administrators, and through collaborative efforts with schools and professional organizations such as TSTA. Mr. Nafe will send President Kendall-Fite additional information on this program and the "Partnerships for Technology Education" outreach program. President Kendall-Fite thanked Mr. Nafe for his informative presentation.

TAS member and past president Mike Kennedy submitted a request for fellowship support for J. R. Choate. After reviewing the request, the Executive Committee agreed its funds were inadequate to honor the request.

President Kendall-Fite read a request from United States Army Corp of Engineers for public input related to environmental impact of a development in the Mill Creek flood area, Davidson County. Committee members were asked to pass the information along to interested colleagues. Response is requested by January 1, 2004.

Sites for future annual meetings are as follows. The 2004 meeting will be held at Columbia State Community College, Columbia, Tennessee. The 2005 meeting is scheduled for Friday, November 19, at the University of Tennessee, Martin, in Martin Tennessee. Meeting sites in middle Tennessee are needed for the 2006 and 2007 annual meetings. The 2008 annual meeting will be held in the eastern region of the state. Discussion followed related to the prospect of a joint meeting with the Kentucky Academy of Science (KAS) since a five-year period would have elapsed since the last joint meeting with KAS. The committee agreed that the invitation would need to originate with KAS. A poll of the TAS membership related to interest in joint meetings would be helpful in making future decisions.

President Kendall-Fite announced the following members of the Local Arrangements Committee at the 2004 host institution, Columbia State Community College in Columbia: Karen Kendall-Fite, Brian Long, Lisa Rutledge, Mandy Carter-Lowe, David Fawcett, and Jan Whitley.

President Kendall-Fite adjourned the meeting of the TAS Executive Committee at 10:45 PM CST.