

PROCEEDINGS OF THE TENNESSEE ACADEMY OF SCIENCE

Sarah H. Swain, Secretary TAS

Middle Tennessee State University, Murfreesboro, Tennessee

Tennessee Academy of Science
Executive Committee Meeting
24 April 1998

The Executive Committee meeting of the Tennessee Academy of Science (TAS) was called to order by President Eugene Kline at 7:15 PM in Conference Room 336, Avon Williams Complex, Tennessee State University, Nashville, Tennessee, 24 April 1998. Members present were Eugene Kline, President; Steven Murphree, President-elect; Michael L. Daley, Past President; Sarah H. Swain, Secretary; John W. Harris, Treasurer; Wayne Wolford, Managing Editor; Jack Rhoton, Director of Junior Academy; Richard Raridon, Director of Collegiate Division; David Kesler, Director of Electronic Communications; Darlene Loprete, Member-at-large; John Schommer, Membership Committee Chairperson.

Minutes of the 20 November 1997 Executive Committee meeting had been mailed to committee members by Secretary Swain. A motion to approve the minutes passed.

REPORTS FROM OFFICERS AND DIRECTORS

Treasurer John W. Harris presented the following 24 April report:

CASH BALANCE - JULY 1, 1997 \$49,250.26

RECEIPTS

Membership Fees	8,920.00
Institutional Dues	5,000.00
Library Subscriptions	2,460.00
Interest Earned, Trans Financial Bank	569.40
Dividends Earned, J.C. Bradford Money Mkt Fund	931.27
Journal Page Charges	633.25
Contributions	175.00
Annual Meeting Registration and Lunch Fees	4,200.00
Life Membership Trust Fund	368.75
TJAS Trust Fund	2,360.14
Exhibitor's Fees	100.00
Journal Sales	20.00
Close-out of USPS-Memphis Acct.	95.76
Close-out of ORAU VSP Acct.	2,830.07
TOTAL RECEIPTS	28,663.64

TOTAL CASH AVAILABLE 77,913.90

DISBURSEMENTS

Tennessee Junior Academy of Science	7,824.74
Annual Meeting	3,284.06

Treasurer's Expenses	1,243.00
Secretary's Expenses	526.14
Insurance/Security Bond	385.00
Travel	754.35
Journal	3,381.72
Dues/Fees	20.00
Auditor's Fee	925.00
AAAS Meeting Expenses	465.00
Visiting Scientist Program	151.34
Collegiate Division	300.00
Web Site Maintenance	279.20
Plaques	202.94
President's Expenses	81.35
Transfer to Life Membership Acct.	5,196.27
TOTAL DISBURSEMENTS	25,020.11

CASH BALANCE - April 20, 1998	52,893.79
Receipts	28,663.64
Disbursements	25,020.11
Cash Increase	3,643.53

BREAKDOWN OF HOLDINGS

U.S. Postal Service, Lawrence, KS	500.00
T. T. U. Account	259.33
Checking Account, Trans Financial Bank	3,116.44
Savings Account, Trans Financial Bank	25,611.37
Money Market Fund, J. C. Bradford	23,406.65

TAS HOLDINGS as of April 20, 1998 52,893.79

TJAS TRUST FUND (Vanguard Star Fund)

(7,427.83 shares owned as of 03/31/98)

Account Value as of 09/30/97	129,599.50
Deposits (Capital Gains Reinvested) 12/31/97	8,329.91
Disbursements (Dividend Distributions) 12/31/97	2,360.14
Account Value as of 12/31/97	129,091.39
Account Value as of 03/31/98	139,861.39

LIFE MEMBERS TRUST FUND (J. C. Bradford)

(15 3-yr. U. S. Treasury Notes @ \$1000 ea., Date of Issue - 11/15/97)

Value of Notes as of 09/30/97	10,022.00
(10 notes)	
Disbursements (Interest Income) 11/15/97	368.75
Estimated Annual Income	863.00
Value of Notes as of 12/31/97	15,028.00
Value of Notes as of 03/31/98	15,038.00

TOTAL VALUE OF HOLDINGS

as of April 20, 1998 \$207,793.18

A motion to accept the Treasurer's report was approved. Treasurer Harris presented the 1998-1999 budget recommendations based on past patterns of income and expenses. New items in the budget include allocations for plaques/awards, office of president, and web-site maintenance. A motion by Treasurer Harris to add \$1000 for the Publicity Committee was approved. The following budget for 1998-1999 was accepted:

RECOMMENDED BUDGET FOR 1998-1999

	Projected Income (1998-1999)
Membership Dues	\$10,000.00
Institutional Members	5,000.00
Annual Meeting Fees	4,000.00
Journal Page Charges	3,000.00
Library Subscriptions	2,500.00
Interest/Dividends Earned	1,900.00
Exhibitor's Fees	200.00
Contributions	200.00
TJAS Trust Fund	4,060.00
Life Members Trust Fund	865.00
TOTAL	\$31,725.00

Account Approved (1998-1999)

Secretary	600.00
Treasurer	1,500.00
Jr. Academy	9,000.00
Visiting Scientist Program	2,000.00
Journal	10,000.00
Annual Meeting	4,000.00
Collegiate Division	1,200.00
Travel	800.00
A.A.A.S. Meeting	500.00
Audit Fee	950.00
Annual Dues/Fees	150.00
Insurance/Security	400.00
Plaques/Awards	250.00
President	125.00
Web Site Maintenance	250.00
Publicity Committee	1,000.00
TOTAL	\$32,725.00

Wayne Wofford, Managing Editor for the *Journal of the Tennessee Academy of Science*, presented the following report:

"First proofs of Vol. 72(3-4) will be returned to Allen Press next week. It will contain four papers, the abstracts of papers presented at the spring 1997 Collegiate Meetings, and announcements of the winners of the best student paper awards for Collegiate Division meetings. This is the last issue in which Phyllis Kennedy is involved. I am now handling all submissions and correspondence with Allen Press.

"Copy of Vol. 73(1-2) will be sent to Allen Press within two weeks. It will contain the profile of the new president, the minutes of the executive committee meetings (April and November) and the Annual Business Meeting, abstracts of presentations at the annual meeting, a list of new members, 4-5 manuscripts, and announcements of best paper awards at the annual meeting.

"I am putting together a database of potential reviewers of

manuscripts, most of which were identified at the annual meeting at Motlow State Community College. This should be helpful to the Section Editors.

"I am currently managing 24 manuscripts. At this point, 4 have been accepted for publication, 8 are in revision, 9 are being reviewed, and 3 have been rejected. Areas represented by the submissions include zoology, medical science, chemistry, engineering, botany, geology, mathematics, and science and math teaching."

The Managing Editor's report was accepted. Managing Editor Wofford stated that he would continue to encourage members to add to the database for potential reviewers at annual meetings. Electronic Communications Director Kesler volunteered to place a request for reviewers on the TAS Webpage.

Richard Raridon, Director of Collegiate Division presented the following report:

"The Western Regional Meeting was held at Union University in Jackson on March 21, 1998. Twenty-two papers were presented by students from four schools.

"The Eastern Regional Meeting was held at Southern Adventist University in Collegedale on April 15, 1998. Twenty-six papers were presented by students from five schools.

"The Middle Regional Meeting was held at Austin Peay State University in Clarksville on April 18, 1998. Twenty-five papers were presented by students from eight schools.

"The regional sponsors are Dr. Fred Matthews, Austin Peay State University; Dr. Gary Litchford, The University of Tennessee at Chattanooga; Dr. Charles Biggers, The University of Memphis."

The Collegiate Division report was accepted. Director Raridon reported to the committee that a revised Call for Papers form for the Collegiate Division asks applicants to indicate if the presenter is a graduate or undergraduate student. This information is for TAS only and will not be available to judges. The practice of awarding one student presenter per section will continue.

The Executive Committee discussed the advantages of standardizing the criteria for the student awards given in the Eastern, Middle, and Western Regional Collegiate Divisions. President Kline asked Director Raridon to standardize a plan to recommend to the regional sponsors. Treasurer Harris added that any outside funds raised to support regional meetings must be reported to the TAS Treasurer. The duties of regional sponsors will be included in the next revision of the TAS Operations Manual.

Richard Raridon also serves as the TAS delegate to the American Association for the Advancement of Science (AAAS) and the National Association of Academies of Science (NAAS). He submitted the following report:

"I represented TAS at the American Association for the Advancement of Science and the National Association of Academies of Science held in Philadelphia, PA on February 12-17, 1998. TAS is affiliated with AAAS through representation in Section Y, General Interest in Science and Engineering. Section Y sponsored several symposia at the meeting, which was the 150th anniversary meeting of AAAS.

"NAAS sponsored a workshop at the meeting entitled, 'Using Technology to Enhance Academy Communication'.

"There were no students representing Tennessee at the American Junior Academy of Science program. Next year's meeting will be held January 21-24, 1999, Anaheim, CA".

The report was accepted. Raridon noted that he had been attending AAAS/NAAS national meetings for 30 years and would prefer that another member represent TAS at future meet-

ings. The Executive Committee expressed appreciation to Richard Raridon for his long tenure and dedicated service on behalf of TAS.

Junior Academy of Science Director Jack Rhoton provided copies of the program of the Tennessee Junior Academy of Science (TJAS) annual meeting held today at Pearl Cohn High School, Nashville, Tennessee, and presented the following report:

“The 1998 spring meeting of the TJAS was held on Friday, April 24, at Pearl Cohn High School in Nashville. A total of twenty-five students were invited to present their research papers. This year we received fifty research papers from students throughout the state.

“During the April 24 meeting, a framed certificate and a small honorarium (\$100) was presented to an outstanding secondary science teacher from each region of the three grand divisions of the state. The recipients of this year’s award are as follows: Sheila Jacobstein (AP Biology), Webb School of Knoxville, Knoxville; Clair P. Ivanov (Chemistry, Physics), Maplewood High School, Nashville; and Almeda C. Luster (Biology, Chemistry, AP Chemistry), Bolton High School, Memphis.

“These TAS Distinguished Teacher Awards recognize teachers for their outstanding contributions to science education and for stimulating and inspiring students to an active interest in science. This year the Awards Committee received twenty nomination packets”.

The report was accepted. A motion to provide up to \$500 each for two students to attend the American Junior Academy of Science meeting was approved. A motion to provide \$150 each for the top male and top female TJAS presenters at the annual TJAS meeting was approved.

Director Rhoton shared a letter from a parent whose children had been involved in TJAS. The parent praised the benefits of the research program and credited one child’s admission to a nationally recognized university to the learning experience in TJAS.

In the absence of a director, TAS Executive Committee members Michael Daley and David Kesler have been working to reorganize the Visiting Scientist Program. Michael Daley, who has been contacting TAS members to serve as local coordinators for the program, reported that a coordinator is needed to serve the eastern part of the state. Local coordinators are needed to promote the program to K-12 teachers and administrators in four geographic regions of the state.

David Kesler and Michael Daley presented the TAS “Networks Program”, a pilot project currently underway with Shelby County teachers. The goal of the project is to make science and scientists accessible to students via the Internet. Via e-mail, a student may establish personal communication with a scientist who responds to the student’s questions. Students and teachers are encouraged to contact TAS Networks Scientists through the TAS Membership Database on the World Wide Web at: <http://tas.rhodes.edu/tas/tasmembers.html>. Students, teachers, and TAS members with questions about this program may contact Dr. Michael Daley, Department of Electrical Engineering, The University of Memphis, e-mail: daleyml@memphis.edu, or Dr. David Kesler, Rhodes College, Memphis, e-mail: kesler@rhodes.edu. Plans are underway to inform teachers statewide through publications and organizations such as the Tennessee Science Teachers Association.

Director of Electronic Communications, David Kesler, reported that the TAS website now has a calendar for TAS-spon-

sored events. New software is permitting continued expansion of the site.

REPORTS FROM COMMITTEES

President-elect Steve Murphree reported that plans for the November 1998 annual meeting at Tennessee Technological University in Cookeville include a plenary session theme related to the importance of science and technology to society.

John Schommer, Membership Committee Chairperson, discussed plans to place membership forms on the TAS website. Secretary Swain and President-elect Murphree will update the membership form prior to mailing the Call for Papers in July.

Darlene Loprete, Publicity Committee Chairperson, discussed ideas for a TAS newsletter. Items such as collegiate meeting announcements, awards, publicity for the Visiting Scientist Program, requests for reviewers, dates for TAS events, etc. could be included. Teresa Pilcher, Pellissippi State Community College, will also serve on this committee. The first newsletter may be ready for distribution by July 1.

Ideas for consideration by the Long Range Planning Committee included the formulation of a mission statement for the academy. Darlene Loprete, Publicity Committee Chairperson, recognized the need for such a statement in TAS promotional publications. President Kline suggested investigating the position of a TAS Executive Director, using models from other state academies.

The Financial Oversight Committee did not submit a report. Treasurer Harris agreed to contact committee chairperson, Mike Kennedy, to discuss management of TAS investment funds and potential outside sources of funding for the academy.

Based on a recommendation from the Industry/Government Committee, Ted Lundy, Chairperson, the Executive Committee approved a motion to waive the TAS membership requirement for the Industrial Scientist Award.

President Kline provided a current TAS membership list, and a list of TAS members who had participated in TAS annual meetings during the last 10 years, for use by committee chairpersons who need to locate workers.

OLD BUSINESS

Locations for future TAS annual meetings are planned as follows: 1998 Tennessee Technological University, Cookeville; 1999 University of Tennessee-Memphis; 2000 TAS hosts a joint meeting with Kentucky Academy of Science. The UT-Memphis location for 1999 is a change from the original plan to hold the meeting at UT-Martin.

Tentative dates for the joint meeting with Kentucky Academy of Science, to be held in the middle Tennessee area, are November 16–18, 2000. Michael Daley is investigating possible meeting sites in the Nashville area.

The annual meeting site for the year 2001 needs to be in the middle Tennessee region. President Kline will try to confirm a location and date before the November Executive Committee meeting.

John Harris requested that the duties of Meeting Coordinator be included in the TAS Operations Manual. Recent Local Arrangements Chairpersons will be consulted for details.

NEW BUSINESS

Michael Daley reminded Executive Committee members that nominations for TAS awards could be received annually

from the membership. Awards will be given only in those years when nominations are received and approved. Nominations for the awards should be forwarded, along with supportive documentation, to Secretary Swain by September 15 each year. Specific information on the following awards can be found on the TAS website and in the January-April 1997 issue of the *Journal of the Tennessee Academy of Science*: Distinguished College/University Scientist Award, Industrial Scientist Award, Outstanding College/University Teacher Award, and Outstanding Secondary School Science Teacher Award.

The Idaho Academy of Science contacted Michael Daley with an invitation for complimentary exchange of membership and publications as a source of ideas for both academies. John Harris will send TAS information and publications to the Executive Director, Philip A. Anderson, Idaho Academy of Science.

Following discussion regarding the need for leadership to guide the Visiting Scientist Program, a motion to appoint Michael Daley Director of the TAS Visiting Scientist Program was approved. Dr. Daley has been actively involved in organizing regional coordinators for the program. Recently he has worked with David Kesler in developing the TAS "Networks Program" (described in these minutes), an Internet outreach effort to make science and scientists accessible to students and teachers.

President Kline reported that he is contacting TAS members regarding service on Standing Committees. He will send Executive Committee members the completed list of Standing Committees, chairpersons, and committee members as soon as possible. The Executive Committee agreed that a rotating membership maintains continuity of service from year to year. John Schommer, Membership Committee Chairperson, discussed ideas for recruitment, including broadening the appeal of the *Journal* as a way to attract and retain members. Book reviews, teaching papers, biographical sketches, and other ideas were discussed as possibilities.

President Kline relayed a request from TAS member Rubye Prigmore-Torrey to schedule paper sessions for certain sections on Thursday evening prior to the Friday annual meeting in November. She recommended the Thursday evening meeting time for the following sections: Science and Math Teaching, History of Science, and Ethics in Science and Technology. By eliminating competing schedules, this arrangement would allow members to attend these sessions of general interest as well as sessions in their academic disciplines, such as zoology, chemistry, etc. Members of the Executive Committee expressed concern that participation would be low for sessions scheduled for Thursday evening, and agreed not to recommend the change for the 1998 November annual meeting.

President Eugene Kline adjourned the 24 April 1998 meeting of the Executive Committee of the Tennessee Academy of Science at 10:10 PM CST.

TAS Executive Committee Meeting 19 November 1998

The Executive Committee meeting of the Tennessee Academy of Science (TAS) was called to order by President Eugene Kline at 6:45 PM CST in the Executive Dining Room, University Center, Tennessee Technological University, Cookeville, Tennessee. Attendees introduced were President Eugene Kline, President-elect Steven Murphree, Past President Michael Daley, Treas-

urer John W. Harris, Secretary Sarah H. Swain, Managing Editor M. Gore Ervin, Junior Academy of Science Director Jack Rhöton, Collegiate Division Director Richard Raridon, Director of Communications David Kesler, Members-at-large Ted S. Lundy and David J. Wilson, Long Range Strategic Planning Committee Chairperson George Murphy, and observer Martin V. Stewart. Dinner had been provided earlier in the evening by Tennessee Technological University.

REPORTS FROM OFFICERS AND DIRECTORS

Minutes of the 24 April 1998 Executive Committee meeting had been mailed to committee members by Secretary Swain. A motion to approve the minutes passed.

President-elect Steven Murphree and Local Arrangements Chairperson Mike Redding, Tennessee Technological University, reported that approximately 150 paper titles had been published in the program and that 22 posters were expected to be displayed. Plans for the evaluation of student posters and papers were discussed. The names of the student award winners will be placed on the TAS website. Certificates signed by the TAS President will be mailed to the award recipients soon after the meeting. Refreshments during the meeting will be provided by Tennessee Technological University. President-elect Murphree praised Mike Redding and the other members of the Local Arrangements Committee for their work in site preparation and management for the 1998 annual meeting. Treasurer Harris reported that approximately 150 persons had pre-registered for the meeting.

The following report was presented and discussed by Treasurer John W. Harris:

TREASURER'S REPORT 15 November 1998 John W. Harris, Treasurer

CASH BALANCE - JULY 1, 1998	52,440.10
RECEIPTS	
Membership Fees	5,188.00
Institutional Dues	4,000.00
Library Subscriptions	2,110.00
Interest Earned, Star Bank	176.10
Dividends Earned, J. C. Bradford Money Mkt.	289.16
Contributions	220.00
Annual Meeting Registration, Luncheon Fees	2,120.00
Journal Sales	5.00
Exhibitor's Fee	50.00
TOTAL RECEIPTS	14,158.26
TOTAL CASH AVAILABLE	66,598.36
DISBURSEMENTS	
Tennessee Junior Academy of Science Annual Meeting	4,404.95
Treasurer's Expenses	443.98
Secretary's Expenses	259.59
	587.09
TOTAL DISBURSEMENTS	5,695.61
CASH BALANCE - November 15, 1998	60,902.75

Receipts	14,158.26
Disbursements	5,695.61
Cash Increase	8,462.65
BREAKDOWN OF HOLDINGS	
U.S. Postal Service, Lawrence, KS	500.00
T. T. U. Account	140.55
Checking Account, Star Bank	4,907.99
Savings Account, Star Bank	31,373.83
Money Market Fund, J. C. Bradford	23,980.38
TAS HOLDINGS as of November 15, 1998	60,902.75
TJAS TRUST FUND (Vanguard Star Fund)	
(7,427.583 shares owned as of 09/30/98)	
Account Value as 03/31/98	139,861.39
Deposits (Capital Gains Reinvested)	0.00
Disbursements (Dividend Distributions)	
06/30/98	1,856.90
Account Value as of 06/30/98	139,787.11
Account Value as of 09/30/98	128,422.91
LIFE MEMBERS TRUST FUND (J. C. Bradford)	
(15 3-yr. U.S. Treasury Notes @ \$1,000 ea., Date of Issue – 11/15/97)	
Value of Notes as of 03/31/98	15,038.00
Disbursements (Interest Income) 05/15/98	431.25
Estimated Annual Income	862.00
Value of Notes as of 06/30/98	15,075.00
Value of Notes as of 09/30/98	15,407.85
TOTAL VALUE OF HOLDINGS	
as of November 15, 1998	204,733.51

Treasurer Harris informed the committee that the bank holding TAS checking and savings accounts had changed its name from Trans Financial Bank to Star Bank during the past year. A motion to accept the Treasurer's Report was approved.

During the summer months of 1998 Wayne Wofford resigned his post as Managing Editor. The Executive Committee elected M. Gore Ervin, Middle Tennessee State University, to serve as Managing Editor for the *Journal of the Tennessee Academy of Science*. The following is the report presented by Editor Ervin:

"The journal manuscript database currently contains 43 files. The distribution of these manuscripts includes the following categories: in press – 4, accepted – 5, in review – 18, returned for revision – 5, new submissions to be reviewed – 3, undetermined status – 3, rejected – 3, withdrawn 1. This listing includes 13 new manuscripts submitted in 1997 and 17 new submissions to date in 1998. The remaining manuscripts represent submissions from 1995–1996.

The first proofs and first revisions of the July–October 1997 issue of the journal (Volume 72(3–4)) have been completed and the tentative date for distribution to the membership is late November 1998. Issue 3–4 includes four manuscripts and will contain 36 total pages.

Preparation of the 1998 issues of the *Journal of the Tennessee Academy of Science* is underway. In addition to the society business normally relegated to the January–April issue, Volume 73(1–2) will contain three manuscripts. The July–October issue, Volume 73(3–4) will contain six manuscripts, depending on the

number of manuscripts accepted over the next few weeks. The current timeline is for submission of copy to Allen Press for Volume 73(1–2) the first week of December, with copy for Volume 73(3–4) to follow the first week of January.

Collection of materials for the January–April 1999 issue (Volume 74(1–2)) has begun. February 1, 1999 is the target date for submission of copy to Allen Press. This would place the journal on schedule for future publications.

I submit for approval by the Executive Committee the following nominee for the Zoology II Section Editor position: Dr. Karl Joplin, Department of Biological Sciences, East Tennessee State University, Johnson City, TN.

I request an opinion from the Executive Committee regarding the inclusion of an Editor's page, book reviews or invited review articles in future issues of the *Journal of the Tennessee Academy of Science*."

Members of the Executive Committee thanked Editor Ervin for his efforts to return the *Journal* to a timely publication schedule. It was agreed that a statement would be made to inform the membership attending the annual business meeting that *Journal* publication would soon be on schedule. Treasurer Harris suggested that, as soon as possible, the publication schedule return to four issues per year. A motion to accept Dr. Karl Joplin as Zoology II Section Editor was approved. The committee endorsed Editor Ervin's interest in additional features in future issues of the *Journal*, and noted that the TAS Constitution provides for the inclusion of reports from affiliated societies.

Collegiate Division Director Raridon reported that regional meetings would be held in the spring and that his report would be presented, as usual, at the April Executive Committee meeting. As the TAS representative to the American Association for the Advancement of Science (AAAS), Dr. Raridon will attend the AAAS meeting in Anaheim, CA in January 1999.

Junior Academy of Science Director Jack Rhoton presented the following report:

"The 1998 spring meeting of the Tennessee Junior Academy of Science (TJAS) was held on Friday, April 24, at Pearl Cohn Comprehensive High School in Nashville. A total of forty-five papers were submitted. Twenty-four of these papers were selected by a panel of readers to be presented at the annual meeting. The two top presenters were Kevin Vaughn, Knoxville Catholic High School, Knoxville, and Christine Donhardt, Colliersville High School, Colliersville. The title of Mr. Vaughn's paper was "Investigating the Role of Tryptophan-5-Hydroxylase in the Development of *Drosophila melanogaster*." The title of Ms. Donhardt's paper was "Effects of Grapefruit Antifeedants on the Second Instar Larvae of the Colorado Potato Beetle: A Three Year Study." Both papers were published in the 1998 *Handbook of the Tennessee Junior Academy of Science*, along with four other papers of the top six winners. Also, the abstract of each presenter at the annual meeting was printed in the *Handbook*. The *Handbook* was sent to all high school science departments identified in the Tennessee State Department of Education's Directory of Public Schools, Approved Non-public and Special State Schools.

"Three teachers were recognized at the Junior Academy meeting. The recipients of the 1998 award were as follows: Sheila Jacobstein (AP Biology), Webb School of Knoxville, Knoxville; Clair P. Ivanov (Chemistry, Physics), Maplewood High School, Nashville; Almeda C. Luster (Biology, Chemistry, AP Chemistry), Bolton High School, Memphis.

"Linda Barrett Phelps has been named recipient of the prestigious 1998 Tennessee Academy of Science Distinguished Sci-

ence Teacher Award. Phelps, who is a high school chemistry teacher in Camden, Tennessee, will receive the award on November 20, 1998 during the annual meeting of the Tennessee Academy of Science (Tennessee Technological University). Ms. Phelps teaches chemistry at Camden Central High School, Camden Tennessee. Begun in 1997, this award program is designed to recognize outstanding science teachers. The award is given annually to one Tennessee science teacher who has made significant contributions to the teaching of science. In addition to the recognition, Phelps will receive a plaque and certificate. The criteria for the award are based on the candidate's education record, involvement in professional organizations, special awards or recognition, contributions to the teaching profession, and letters of support."

REQUEST FOR FUNDING

Tennessee Junior Academy of Science 1998-1999 School Year

Eleven high school students have requested research grants to assist their efforts in developing research projects for the TJAS program. Each student has presented a sound description of the project: general purpose and goals, statement of need, and nature of the research. The following students have requested funding:

Student	Title of Research	Amount
Carolyn E. Fain Jefferson Co. High Dandridge, TN	The Effects of Various Nutrient Solutions on the Growth and Production of Hydroponically Grown Fruits and Vegetables	\$300
Andrew B. Cowan Bristol High School Bristol, TN	Survey of Owl Populations in Steele Creek Park	\$300
Samar Ali Waverly Central High Waverly, TN	Analysis of Selected DNA Markers on Chromosome 12 Among Three Racial Groups	\$200
(Ebie)Mary McFarland Waverly Central High Waverly, TN	Analysis of Selected DNA Markers on Chromosome 12 Among Three Racial Groups	\$200
Christine R. Donhardt Collierville High School Collierville, TN	Effects of Grapefruit Antifeedants on the Second Instar Larvae of the Colorado Potato Beetle: A Four-Year Study	\$300
Blayne Gibson Dickson Co. Senior High Dickson, TN	The Use of Photography in Ophthalmologic Examinations	\$300
Michael J. Carbonetto Jefferson Co. High School Dandridge, TN	The Effect of Cobalt-60 on the Development of the Roots in Radishes and Marigolds	\$42
Abraham Choi Jefferson Co. High School Dandridge, TN	The Effect of Temperature on Sea Urchin Embryos	\$300
Robert J. Simpson Webb School of Knoxville Knoxville, TN	Experimental Design	\$300
Jason Scott Clinton High School Clinton, TN	Development of a Gas Chromatograph Analysis for Environmentally Acceptable Commercial Blends	\$300
Travis Mathis Jefferson Co. High School Dandridge, TN	Design of a Server	\$300
TOTAL:		\$2842

Director Rhoton recommended that the Executive Committee approve the above requests for research funds. He explained that each student who receives research funds is required to submit a paper and present a report at the TJAS meeting. Director Rhoton follows the progress of the research projects to see that TAS funds are used appropriately. Each year he solicits participation by schools whose students have not participated in the program in the past. He noted that the program continues to grow and may require a two-day meeting or concurrent paper sessions to accommodate the number of participants. A motion was approved to accept Director Rhoton's report and to fund the requests for research grants. Director Rhoton presented copies of a press release announcing the selection of Linda Phelps as the 1998 TAS Outstanding Science Teacher.

Visiting Scientist Program (VSP) Director, and Past President, Michael Daley reported his concentrated efforts to schedule visits within the Memphis City Schools. He expects to have ten visits accomplished during the spring semester. Director Daley also recommended the allocation of TAS funds for regional science fair awards. The Executive Committee recognized the recommendation as an opportunity for TAS members to participate as project mentors, liaisons, or judges. A motion to award two monetary awards (\$50 each) at each of the regional science fairs of Tennessee to be presented by a designated TAS member, and to be distributed at the discretion of the VSP regional coordinators, was approved.

David Kesler, Director of Electronic Communications, reported on the TAS Networks Program available as a resource for K-12 science education. Currently, over 100 TAS members have volunteered to communicate with classrooms via the Internet. Information about the program is available on the World Wide Web at <http://tas.rhodes.edu/tas/tasmembers.html>. At this site teachers and students can search for appropriate TAS Network Scientists who can be contacted via e-mail. Director Kesler reported that "TAS Networks Program" flyers have been distributed to Shelby County teachers. Computer records show an average of 1-2 contacts to the database per day. Kesler would like feedback information from TAS members who participate. President-elect Murphree suggested announcing the program in the newsletters of organizations such as the Tennessee Science Teachers Association and the Tennessee Environmental Education Association.

REPORTS OF COMMITTEES

Long Range Strategic Planning Committee Chairperson George Murphy presented the following report on behalf of committee members Steven Murphree, Diane Nelson, Andy Sliger, and David Yarbrough:

"(1) We note that many recommendations from the spring 1997 Strategic Planning Committee report are in the process of implementation through constitutional amendments. Specifically, the establishment of standing committees of Publicity, Financial Oversight, Industrial/Government, and Long Range Strategic Planning should broaden the leadership base and serve a number of useful functions.

"(2) The previous recommendation for a two year term for President, or the suggestion for establishment of a position of executive director should not be implemented at this time. Additional study will be required with additional options explored.

"(3) We encourage movement toward a broader membership base involving industry and other entities and encourage the new-

ly formed Industrial/Government committee to explore all options.

“(4) In response to President Kline’s query on the long range planning committee, the original recommendation was that the long range strategic planning committee should consist of the president-elect, current and former presidents, and others who have some “institutional memory” of the organization (for instance some current or former executive committee members), as well as “new” members of the academy, and should help to insure that the academy is responsive to changing needs of members and opportunities for service. The committee should begin with this current effort, make modifications as deemed necessary, monitor achievement of established goals, and make regular reports to the executive committee.”

“We recommend that the committee have 6 to 9 members (certainly no larger). The president-elect, current president, past president and 3 to 6 more would serve with staggered terms of three years each so that there would always be a majority with experience on the committee. Reappointments could occur. Each president would appoint one or two members, depending on whether the committee size is 6 or 9.”

Financial Oversight Committee will be managed by Treasurer Harris until the president appoints a chair. No report was available.

Publicity Committee Chairperson Darlene Loprete did not submit a report. David Kesler volunteered to contact Chairperson Loprete regarding the preparation of press releases that can be used for most TAS events and awards. The proposed newsletter has not yet been published.

Industry/Government Committee Chairperson Ted S. Lundy presented the following report:

“Although the committee did not formally meet at one location during the 1997–1998 year, we met via the WWW to carry on business as a group of four including yours truly. Mike Daley, David Wilson, and Bill Eads (formerly with the State of Tennessee and thereby representing the government part of our charge, now with Vanderbilt). Our assignment this year was primarily that of initiating an award, TAS Industrial Scientist of the Year. Since the mission of the TTU Center for Manufacturing Research (CMR) is consistent with the TAS assignment, development of the selection criteria and presentation of the first award were handled primarily by the CMR staff at TTU. Developmental steps included two mass mailings to the 258 largest manufacturing employers of Tennessee—all listed in the 1998 Directory of Tennessee Manufacturers. The first mailing introduced those companies to the potential award by TAS and requested guidance for selection criteria. The second asked for nominations. Copies are attached for your information.

“Three outstanding individuals were nominated for the award and the four committee members voted, as suggested by one of the members. We ranked the three nominees 1–2–3 with the lowest point total winning. Results were heavily in favor of Dr. E. Barry Jones, Senior Research Fellow for DuPont at their Old Hickory Plant, and arrangements have been made for awarding the plaque during the business session of the TAS annual meeting on Friday, November 20.

“I am suggesting that the TAS Board authorize continuation of the award process for 1999 with continuing emphasis on spreading the word to more and more companies for their participation, not only in the award process but also in TAS active membership from Tennessee industry. I also suggest that this year’s award winner be asked to serve on the committee for se-

lection of next year’s award winner. Thank you for allowing me to participate in the initial year for this award.”

Chairperson Lundy also reported that three guests from the DuPont Company are expected to attend the TAS annual business meeting for the presentation of the TAS Industrial Scientist Award to their colleague, E. Barry Jones. A news release of the award will be sent to a national manufacturing publication.

Electronic Communications Director David Kesler requested suggestions for additions to the TAS website. He encouraged Executive Committee members to visit the site and its various links. Suggestions should be sent via e-mail to kesler@rhodes.edu.

The Audit Committee, R. K. Fletcher, Jr., Chairperson, submitted the following report:

“The Audit Committee, consisting of Dr. David Yarbrough, Dr. Robert E. Martin, and I, had an audit as required by the Academy for the year ending June 30, 1998 prepared by Mr. James F. McKinnie, MBA, Cookeville, Tennessee. He examined the receipts and disbursements records and found everything in order and the accounting system well maintained. The committee recommends approval of the financial report based upon this audit. The committee also wishes to commend Dr. John Harris, Treasurer, for his efforts and meticulous job in keeping good financial records for the Academy.”

Included in the report is the following from auditor James F. McKinnie:

“I have examined the receipts and disbursements records of the Tennessee Academy of Science for the fiscal year ended June 30, 1998, and in my opinion the attached Cash Receipts and Disbursements Statement correctly reflects the cash position of the organization at June 30, 1998. The entire accounting system is well maintained and to be commended. I have prepared a Return of Organization Exempt from Income Tax, including a Schedule A. This Form 990 must be filed with the Internal Revenue Service no later than December 15, 1998.”

TENNESSEE ACADEMY OF SCIENCE

Cash Receipts and Disbursements For Year Ended June 30, 1998

Receipts:

Membership Dues	\$14,230.00
Capital Gains - Vanguard	8,329.91
Dividends - Vanguard	4,217.04
Annual Meeting Fees	4,200.00
Return of VSP Funds	2,830.07
Interest Earned	2,747.90
Library Subscriptions	2,490.00
Journal Page Charges	813.25
Contributions	175.00
Fees	100.00
Misc.	20.00
Total Receipts	\$40,153.17

Disbursements:

Tennessee Junior Academy of Science	\$10,351.15
Printing & Publications	3,381.72
Annual Meeting	3,284.06
Treasurer’s Office Expense	1,405.63
Accounting Fee	925.00
Travel	854.75

Website Maintenance	553.20
Secretary's Office Expense	526.14
AAAS Expenses	465.00
Insurance Bond	385.00
Collegiate Division	300.00
Plaques	202.94
Visiting Scientist Program	151.34
Annual Dues and Fees	20.00
Misc.	281.35
Total Disbursements	23,087.28
Cash Increase from Operations	\$17,065.89
Cash Balance, July 1, 1997	177,870.78
J. C. Bradford - Unrealized Loss	[179.50]
Vanguard - Unrealized Gain	11,037.93
Cash Balance, June 30, 1998	\$205,795.10

TENNESSEE ACADEMY OF SCIENCE

Summary of Cash Accounts June 30, 1998

Trans Financial Bank Cookeville, TN 38501	
NOW Account	\$5,029.78
Savings Account	23,534.00
Total	\$28,563.78
Tennessee Tech. University Cookeville, TN 38505	
Agency Account	34.89
Vanguard Financial Center Valley Forge, PA 19482-2600	
Vanguard Star Fund	137,930.21
U. S. Postal Service Lawrence, Kansas	
Postage Account	500.00
J. C. Bradford & Co. Cookeville, TN 38501	
Cash Account	\$23,691.22
United States Treasury Note	15,075.00
Total	38,766.22
Cash Balance, June 30, 1998	\$205,795.10

The Executive Committee approved a motion to accept the Audit Committee's report.

Fellows Committee Chairperson, Charles R. McGhee, submitted the following report:

"The Fellows Committee, consisting of Brother Kevin Ryan, Dr. Gladius Lewis, and Dr. Charles R. McGhee, recommends that two nominations for Fellow of the Tennessee Academy of Sci-

ence be considered for 1998. The nominees are Dr. Jack Rhoton of East Tennessee State University, and Dr. Elbert Lewis Myles of Tennessee State University. Both members of the academy meet and exceed the requirements for nomination.

Dr. Jack Rhoton has been an active member of the academy for many years. As Director of the TAS Junior Academy of Science, he has worked closely and effectively with teachers and students in the area of research and publication. His efforts on behalf of science education in Tennessee are commendable. He has published in the TAS Journal and has presented papers at annual meetings. He continues to serve as a member of the TAS Executive Committee.

Dr. Elbert Lewis Myles has been active in the areas of molecular genetics and student research. He has expended much time and energy working with teachers and students to encourage research and publication in the Junior Academy of Science Journal. Dr. Myles has given numerous papers and posters at TAS meetings and has served as chairman of his section during annual meetings.

Both of the nominees have contributed much to the success of the Tennessee Academy of Science over the years. The Fellows Committee recommends that they be recognized during the 108th annual meeting for their years of service."

The Executive Committee voted to nominate Dr. Jack Rhoton and Dr. Elbert Lewis Myles as TAS Fellows, as recommended by the Fellows Committee. The names of the nominees will be presented to the membership for approval at the annual meeting.

John Schommer, Membership Committee Chairperson, submitted a report, which is summarized below:

Membership Committee Chairperson John Schommer contacted three museums in Tennessee about possible discounts for TAS members. He continues to negotiate arrangements with one of the three and will report results to the committee at a later date. Chairperson Schommer plans to contact key academic personnel at institutions of higher education who can provide the names of newly hired faculty in math and science. He expects to send TAS membership invitations to new faculty during the spring. Chairman Schommer plans to prepare a packet of procedures and contacts for use by future Membership Committee members.

No report was submitted by the Necrology Committee; however, John Harris reported the deaths of two TAS members during the past year: Dr. Ralph E. Sharp, Middle Tennessee State University, Department of Biology retiree, long-time TAS member and Fellow of the academy; Dr. Elizabeth Ann Wayt, Tennessee State University, Nashville.

The Nominating Committee, Michael Daley, Chairperson, presented the following nominees for consideration by the Executive Committee: John W. Harris, Treasurer; Sarah H. Swain, Secretary; David J. Wilson, President-elect. A motion to accept the recommendations of the Nominating Committee passed. The nomination will be presented to the membership for approval at the 20 November 1998 annual meeting.

No report was submitted by the Research Committee, Rudy Gostowski, Chairperson. President-elect Murphree will discuss matters such as student competition and judging, judge selection, and evaluation criteria with Chairperson Gostowski in the near future.

The following Resolution of Appreciation was submitted by Sallie Noel, Resolutions Committee Chairperson:

"WHEREAS, the Tennessee Academy of Science is enjoy-

ing a most pleasant, profitable, and well-organized series of meetings at Tennessee Technological University, and

“WHEREAS, the success of these meetings has resulted mainly from the efforts of the officers of the respective sections; the Local Arrangements Committee representing Tennessee Technological University, composed of Michael Redding (Committee Chairperson), Patty Dycus, R. K. Fletcher, Frank Hadlock, Hugh Mills, Dan Swartling, Ruby Prigmore-Torrey, and George Webb; from the leadership of Program Chairman Steve Murphree and President Eugene Kline; from the recognition given the meetings by the press, television, and radio stations; and from the generous hospitality of the host institution, Tennessee Technological University and its President Angelo A. Volpe;

“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.”

The Executive Committee voted to accept the resolution and to present it to the membership for approval at the annual meeting.

OLD BUSINESS

Past President Daley reported that the Kentucky Academy of Science (KAS) supports the idea of a joint meeting with TAS in the year 2000. Meeting rooms are being held at the Nashville Convention Center for November 9–11, 2000 at a cost of approximately \$7200. A payment of \$1800 must be made at contract, an additional \$1800 one year before the meeting date, and a final payment of \$3600 to be paid thirty days prior to the meeting date. Also, KAS representatives plan to negotiate a special rate for rooms at a hotel near the convention center. Past President Daley plans to meet in the near future with KAS representatives Marcus McEllistrem and Robert Creek to finalize plans with area hotels and the Nashville Convention Center. David J. Wilson, 1999 President-elect nominee, would like a designee from TAS to help him plan details for the joint meeting.

President Kline read a letter from Middle Tennessee State University (MTSU) President James Walker inviting TAS to hold its 2001 annual meeting on the MTSU campus. President Kline will accept the invitation on behalf of TAS.

NEW BUSINESS

The Executive Committee discussed the urgent need for a TAS member who would serve as Meeting Coordinator. A Meeting Coordinator should be appointed as soon as possible to begin serving a three-year term, 1999–2001. President-elect Murphree served the roles of President-elect (program chairman) and Meeting Coordinator during 1998. He will outline the duties of Meeting Coordinator to be added to the TAS Operations Manual (available from Treasurer Harris).

Jack Rhoton informed the committee of the need for funds to support travel for Tennessee students attending the Science Olympiad National Competition. Two teams, junior high and senior high, expect expenses at approximately \$3500 per team. A motion by Treasurer Harris to award \$500 per team for travel expenses was approved by vote of the Executive Committee. Jack Rhoton will contact Science Olympiad representative.

President Kline informed the Executive Committee of a request from the Ohio Academy of Science to support a proposal for the establishment and operation of the National Institute for the Environment (NIE) under the National Science Foundation (NSF). President Kline provided copies of the proposal for study

by members of the Executive Committee. Legislation in the United States House of Representatives to establish the NIE under the auspices of NSF has 59 co-sponsors for the bill: H. R. 2914, *Sound Science for the Environment Act*. Action was deferred to the April 1999 Executive Committee meeting to allow members time to study the proposal.

President-elect Murphree suggested making a TAS membership pin available to members. An insignia could be designed and produced as a lapel pin at a cost of approximately \$15 to \$20 for interested members. No action was taken by the Executive Committee.

President Kline adjourned the meeting at 9:45 PM CST.

THE ONE HUNDRED EIGHTH MEETING OF THE TENNESSEE ACADEMY OF SCIENCE 19–20 November 1998 Tennessee Technological University, Cookeville

The annual meeting of the Tennessee Academy of Science (TAS) was held on the campus of Tennessee Technological University, Cookeville, Tennessee, 19–20 November 1998. Mike Redding served as chairperson of the Local Arrangements Committee. Steven Murphree, President-elect, served as program chairperson.

The Executive Committee meeting was held Thursday evening, 19 November 1998, in the Executive Dining Room of the University Center on the Tennessee Technological University (TTU) campus. The general session, business meeting, luncheon, poster sessions, and section meetings were held on the TTU campus Friday, 20 November 1998. The general session began at 8:45 AM CST in the University Center, Multipurpose Room, with a welcome from President-elect Murphree. Angelo A. Volpe, TTU President, welcomed the TAS membership to the campus. The annual business meeting followed with TAS President Eugene Kline presiding. The plenary session began at 9:30 AM CST with the keynote address given by Mr. Bill G. Eads of the Center for Technology Transfer at Vanderbilt University. Mr. Eads' address was titled, “Science in the Context of Economic Development”. Attendees viewed posters displayed in the University Center throughout the morning. Lunch was served to participants in the OVC Room of the University Center, followed by paper sessions as listed in the printed program.

ANNUAL BUSINESS MEETING 20 November 1998

President Eugene Kline convened the annual business meeting of the Tennessee Academy of Science (TAS) at 8:50 AM CST in the Multipurpose Room of the University Center on the campus of Tennessee Technological University, Cookeville, and determined by the attendance that a quorum was present. A motion to suspend the reading of the minutes was approved.

Ted Lundy, TAS Executive Committee Member-at-large and chairperson of the TAS Industry and Government Committee, presented the TAS Industrial Scientist Award to Dr. E. Barry Jones, Senior Technology Fellow at Dupont Company, Old Hickory, Tennessee, for advances in manufacturing process technology. Junior Academy of Science Director Jack Rhoton presented the TAS Outstanding Science Teacher Award to Linda Barrett Phelps, chemistry teacher at Camden Central High School, Camden, Tennessee. Past President Michael Daley presented the TAS

Outstanding University Scientist Award to Dr. David W. Yarbrough, Chair and Professor of Chemical Engineering, Tennessee Technological University. Each award recipient accepted a plaque and thanked TAS for the recognition.

Treasurer John W. Harris presented the Treasurer's Report. The auditor's report, read by President Kline, documented the financial stability of the academy. A motion to accept the report was approved by the membership.

President Kline introduced M. Gore Ervin, recently appointed Managing Editor for the *Journal of the Tennessee Academy of Science*, who presented a report. Managing Editor Ervin encouraged the membership to submit manuscripts and to volunteer to serve as reviewers. He announced that the *Journal* would be back on schedule with the publication of the January-April 1999 issue. Visiting Scientist Program Director Michael Daley described recent efforts to organize the program. He asked the membership to help fill the need for additional regional coordinators. David Kesler, Director of Electronic Communications, described the Networks Program to the membership and encouraged members to participate by being included in the Networks database. President Kline thanked Kesler for establishing the TAS Webpage, which he described as "one of the best among the country's state science academies". Junior Academy of Science Director Jack Rhoton described the student projects, publications, and meetings supported during 1998.

On the recommendation of the Fellows Committee, Charles R. McGhee, chairperson, and with the approval of the Executive Committee, a motion to designate the following members as Fellows of the academy passed: Dr. Jack Rhoton, East Tennessee State University, Johnson City, and Dr. Elbert Lewis Myles, Tennessee State University, Nashville.

The number of new members added during 1998 was unavailable at the time of the meeting. Names of new members will be printed in the *Journal*. Alexander Wells, Necrology Committee chairperson, reported the deaths of members Ralph E. Sharp, MTSU Professor of Biology and TAS Fellow, and Elizabeth Ann Wayt, TSU. A moment of silence was observed in remembrance of these TAS members.

The slate of officers presented by the Nominating Committee, and approved by the Executive Committee, was read by Past President Daley as follows: Steven Murphree, President-elect;

John W. Harris, Treasurer; Sarah H. Swain, Secretary. A motion to accept the slate was approved by vote of the membership.

The following resolution, read by Resolutions Committee chairperson Sallie Noel, was accepted by vote of the membership:

"WHEREAS, the Tennessee Academy of Science is enjoying a most pleasant, profitable, and well-organized series of meetings at Tennessee Technological University, and

"WHEREAS, the success of these meetings has resulted mainly from the efforts of the officers of the respective sections; the Local Arrangements Committee representing Tennessee Technological University, composed of Michael Redding (Committee Chair), Patty Dycus, R. K. Fletcher, Frank Hadlock, Hugh Mills, Dan Swartling, Rubye Prigmore-Torrey, and George Webb; from the leadership of Program Chairman Steve Murphree and President Eugene Kline; from the recognition given the meetings by the press, television, and radio stations; and from the generous hospitality of the host institution, Tennessee Technological University and its President Angelo A. Volpe;

"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."

Long-range Strategic Planning Committee Chairperson George Murphy explained the committee's recommendations that require amendment to the TAS Constitution. The goals of the ad hoc committee were to broaden the base of membership and participation, and respond to changing needs of members and opportunities for service. The recommendation to establish the Director of Electronic Communications and the chairmanships of standing committees Publicity, Financial Oversight, Industrial/Government, and Long-range Strategic Planning as permanent positions on the Executive Committee was approved by vote of the membership.

President Kline presented a plaque to Past President Michael Daley in recognition of his service as the 1997 TAS President. President Kline expressed appreciation to Past President Daley for his dedicated service to TAS. President Kline then passed the gavel to 1999 President Steven Murphree who announced that the 1999 annual meeting would be held on the University of Tennessee-Memphis campus. The meeting was adjourned at 9:45 AM CST.