

# Proceedings of the Iowa Academy of Science

---

Volume 83 | Number

Article 3

---

1976

## Annual Report of The Iowa Academy of Science 1975-76

Robert W. Hanson

*University of Northern Iowa*

*Let us know how access to this document benefits you*

Copyright ©1976 Iowa Academy of Science, Inc.

Follow this and additional works at: <https://scholarworks.uni.edu/pias>

---

### Recommended Citation

Hanson, Robert W. (1976) "Annual Report of The Iowa Academy of Science 1975-76," *Proceedings of the Iowa Academy of Science*, 83(2), 41-50.

Available at: <https://scholarworks.uni.edu/pias/vol83/iss2/3>

This General Interest Article is brought to you for free and open access by the IAS Journals & Newsletters at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).

**Offensive Materials Statement:** Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

# Annual Report of The Iowa Academy of Science 1975-76

**ROBERT W. HANSON\***

## PREFACE

Beginning in 1975, with a report on the observance of the Academy's centennial, the Annual Report took on a different format, its content consisting of the essence of committee activity rather than the detailed reports themselves. In addition, it contained such legal necessities as the minutes of the Annual Business Meeting, including election results, financial statements, constitution and bylaws revisions, and the membership roster. The Annual Report becomes, then, a running history of the Academy on a year-to-year basis.

At the fall meeting of the Board of Directors in 1975 it was decided that the Annual Report be published in the PROCEEDINGS rather than as a separate issue of the I.A.S. BULLETIN. Committee reports and board minutes are on file in the Academy office for more detailed reference.

## REVIEW OF ACADEMY ACTIVITY IN 1975-76

The Academy year starts in April when the gavel is handed over to the new president at a general session during the annual meeting. On April 18, 1975, Dr. Paul A. Meglitsch of Drake University was installed as the new president, receiving the gavel from Dr. George Knudson of Luther College, midway in the program observing the centennial of the Academy. At the Annual Business Meeting of the Academy earlier that day, the election of Dr. Willard Poppy as president-elect was announced. Two new directors were elected to the Board — Dr. Paul Christiansen of Cornell College and Dr. Donald Huffman of Pella College replaced Bernard Clausen of the University of Northern Iowa and Dr. Rodney A. Rogers of Drake University.

Shortly after taking office, President Meglitsch completed his appointments to fill vacancies on the various committees of the Academy. The roster of these committees and other leadership personnel appears at the end of this report. Committees serve on a continuous basis with only partial replacements each year, and their work flows from one year into the next without interruption.

The work of the Annual Meeting Committee starts each year with an evaluation of the previous annual meeting. Sister Marguerite Neumann of Clarke College served as committee chairperson as well as local arrangements chairperson for the 1976 meeting held at Clarke College April 9-10. The planning got underway during the summer of 1975 when general symposia were discussed and the blocking of the two-day session was agreed upon. Executive Director Robert W. Hanson visited the Clarke campus early to fit the program to the available facilities.

Following up on some general plans under consideration all through 1975, the interest sections of the Academy were grouped into interest divisions and a new abstract form was designed to permit each author to suggest either a broader interest division or merely a section or both as the locale for the presentation of the paper. It was possible to schedule the contributed papers so as to permit any member of the audience to migrate among the sections, thus achieving the objective of wider availability of the papers of more general interest.

Table I summarizes number of contributed papers and attendance by section and joint session.

Table I. *Number of Papers and Attendance By Section, 1976*

	Papers	Attendance
Anthropology/Archeology	8	28
Botany	22	65
Cell Biology	15	25
Chemical Education	0	18
Chemistry C	8	27
Chemistry D	11	42
Conservation	18	52
Economics	0	0
Engineering	20	34
Geology	4	50
Mathematics/MAA	7	35
Physics/AAPT	8	42
Physiology	9	26
Psychology	11	32
Science Teaching/ISTS	22	82
Zoology	8	19
<b>TOTAL</b>	<b>171</b>	<b>577</b>

## Joint Sessions and Symposia

Physical Science Interest Division	
“Relation Between Applications and Testing of Mathematics”	80
“What Does Industry Want From the Physical Science Graduate”	85
Cancer Research Symposium	90
Waste Disposal Symposium	90

The 171 papers submitted and scheduled for the 88th session were presented by 158 individuals, as shown in Table II. Other data in that table show that only 81 or 51.2% of the individuals who presented papers were members. Student papers constituted 68 or 43% of all papers presented; 53 or 78% of these students were non-members. These figures reflect a change in policy concerning contributed papers in 1976 enabling non-members to submit abstracts for consideration. When the Academy met at Loras College in Dubuque in 1971 there were 158 papers and about 400 in attendance, the lowest number during 1970-76. Returning to Dubuque in 1976 with a different program and paper concept resulted in greater participation. Section reports provided the data for Table I; the counts in Table II came from registration forms. Apparently we had, as usual, a significant number that did not register (about 16%).

Table III deals with the question of how many different individual members were in attendance during 1974-76 and the extent of their repeat attendance. A total of 635 such individual members are identified. Of 289 members registered in 1974, 122 or 42% registered in both 1975 and 1976. In 1975, when the centennial was observed, 71 or 17% had not been present the year before. In 1976 the corresponding figure was 52 or 16%. The Academy's annual meeting seems to appeal to both newcomers and those who had been present the year before. (Non-members are not included in these data; non-member registered attendance in each of the three years was 121 in 1974, 99 in 1975, and 179 in 1976. The 1975 data is not a reliable indicator of non-member attendance because of poor policing of the registration, however.)

\* Executive Director of IAS, Univ. of Northern Iowa, Cedar Falls.

Table II. *Registered Attendance, 1976*

	Pre-registered		Walk-in		Total
	Papers	Others	Fri.	Sat.	
Members					
Professional	66	131	62	35	294
Student	15	5	4	2	26
Total	81	136	66	37	320
Non-members					
Professional	24	18	14	13	69
Student	53	10	16	6	85
Total	77	28	30	19	154
Guests, etc.**	—	14	8	3	25
Total	158*	180	104	59	498

\* (171 papers were presented by 158 individuals.)

\*\* (Guest speakers, honorees, spouses.)

Table III. *Repeat Attendance, 1974-1976 (Members)*

Attendance:	Once	Twice	Three Times	Total
1974 Attendees	73	71 + 23	122	289
1975 Attendees	171	52 + (71)	(122)	223 & (193)
1976 Attendees	123	(52) + (23)	(122)	123 & (197)
Total Individuals	367	146	122	635
Per Cent	58	23	19	100

The 1976 Annual Meeting featured many general interest programs, including tours, citizens workshops on energy and the environment, symposia on cancer research, Cedar River ecology, and waste disposal, joint sessions sponsored by the Physical Science Interest Division, and two general sessions. The first of these brought AAAS staff member Dr. Richard Scribner to Iowa from Washington to discuss his observations on science and policy making at the national level. Accompanying him was Dr. Pamela Ebert, a former AAAS Congressional Science Fellow, to speak on her experiences in that role. The Friday evening general sessions drew a crowd of 350 persons to hear Dr. Dixy Lee Ray speak on nuclear energy, particularly answering the many objections to the further development of this source.

The fall of 1975 included another centennial event that was a first for the Academy, as it was for our neighboring academies in Minnesota and Wisconsin. Over a period of more than a year, representatives of the three state academies had cooperated to plan a tri-state "fall gathering" at Decorah, Iowa. Dr. George Knudson had invited the three academies to meet at Luther College early in October to share in the many opportunities for field studies of the geological, archeological, and cultural characteristics of the Decorah area. The event occupied most of the first week-end in October and was attended by at least 266 persons, including family members — 76 from Wisconsin, 81 from Minnesota, and 109 from Iowa.

Fall gathering participants spent most of their time exploring the flora, fauna, geology, and history of the northeast Iowa area. Other activities included scenic and historic tours of the local area, Luther College displays at the archeological laboratory, the planetarium, and the library, and a program of Norwegian song and dance featuring Decorah's Nordic Dancers, the Luren Singers, and the Christenson Family Singers.

The work of the Elections Committee began in the fall of 1975 under the chairmanship of Dr. Clifford McCollum of UNI. A slate was carefully prepared through the process of soliciting suggestions via the newsletter, correspondence and one meeting at Cedar Falls. The biographical information and photos were gathered by Executive

Director Hanson at the chairman's request and the election was conducted by mail. By the deadline 571 ballots had been received, and the resulting election of the new officers and directors was announced at the Academy's annual business session on April 9 by chairman McCollum. The officers are listed at the end of this report.

The Finance Committee operated under its revised and expanded charge in 1975-76, taking a much larger role in the development of the Academy's budget. The committee met with the Farm Committee, the Social Implications Committee, and some members of the Board of Directors at the Parish Farm on September 13, 1975, to discuss the future of the farm. As a result of that meeting, another in Decorah on October 5, and committee correspondence, the Finance Committee came to the following conclusions that were presented to the Board on March 27, 1976:

"At the directive of the Board, the Finance Committee and the Farm Committee have studied the recommendation from the Social Implications Committee that the house on the Academy farm be razed and replaced by a new house which would include a multipurpose meeting room with outside access and kitchen and toilet facilities. The studies by the committees have resulted in opposing recommendations. The Finance Committee voted overwhelmingly in favor of razing the present house and not replacing it with a new house. Rationale given was:

- 1) The house is in bad shape and probably not worth the capital outlay it would take to bring it up to respectable condition as rental property.
- 2) It is possible to have an ongoing concern for the land without the presence of a new, modern house on the farm.
- 3) Even if the Academy could realize a profit by renting a new and expensive house, it seems questionable that the Academy is properly set up to handle real estate investments.
- 4) Removal of the house might result in savings such as lower insurance rates, lower taxes, and lower maintenance costs.

The chairmen of the two committees have conferred on our inability to reach accord on the matter, and have decided to present our separate, opposing recommendations and let the Board decide the issue."

Four members of the Farm Committee had met on February 9, 1976, and arrived at consensus on several points, one of which was that the house on the farm should be replaced not before five years and not later than ten years from now. Another point agreed upon was that experimental facilities involving solar heating, wind power, sewage disposal, etc., would not be acceptable on the farm, but that innovations in farming or construction which have been proved should be incorporated whenever possible. The committee also recommended that a specific plan for the model farm concept be developed for approval and display at the 1977 annual meeting of the Academy and that 25% of net farm income be set aside annually in a fund for capital improvements on the farm in support of the model farm concept. The committee suggested that decisions related to the recommendations of the Social Implications Committee be deferred until after the 1977 plan is presented, including decisions on the house, landscaping, wind breaks, and other plantings.

In March the Farm Committee reported to the Board that a new roof and some siding repairs had been completed on the house and that the unused hog house had been dismantled and buried while the bulldozers were there having completed the construction of the soil terraces. Damaged walnut trees were removed from the west wind break and the site leveled for cultivation, the cost to be covered by the sale of walnut trees.

The question of what to do with the house on the farm near Reinbeck had been only part of a running debate within the Board of Directors and between the Board and the Farm Committee concern-

ing the future of the Parish Farm as an Academy responsibility, occupying much of the Board's time at each of several meetings. The combined meeting at the farm in September produced a list of recommendations from the Social Implications Committee. These were amended and approved by the Board on November 8, 1975, and reiterated on March 27, 1976. The ten points constitute a policy statement concerning the present and future development and use of the farm; an additional motion put the Board on record as not favoring any further repairs or improvements to the farm house except to the extent that maintenance and repair not exceed net rent income. The recommendations include the following paraphrased points:

1. The farm should be readily available to Academy members for their use (for research and study) and a marked parking area should be provided. A toilet should be installed, using an ecologically sound sanitation system.
2. The Farm Committee should have the responsibility of carrying out long range plans for maintenance and improvement of the farm generally, including both the use and income provisions of the Parish bequest.
3. The Academy's financial stability must not be dependent on farm income; the Finance Committee and the Board should determine how much from this source should be earmarked for general Academy operation. The balance should be placed in a special fund for use of the Farm Committee to make capital improvements, up to a certain maximum. First priority for capital outlay should be for completion of a comprehensive soil and water conservation plan in cooperation with the Soil Conservation Service.
4. The Farm Committee should manage the farm as an exemplary example of farm practices that are socially and environmentally responsible yet economically productive over at least a 50-year period.
5. The prairie and woodlot should be maintained and managed by interested volunteers under the direction of the Farm Committee.
6. No significant effort should be made to develop or promote use of the farm for educational purposes. However, it should be available for such uses and for approved research.
7. The modular classroom building should not be sold at present but should be retained and maintained for future group use. It should be supplied with tables and chairs purchased at schoolhouse sales.

When the Board acted on the recommendations of the Farm Committee on March 27 the term "model farm" was changed to "farm". Rather than wait for 1977 the Board concluded then that no further improvements should be made to the house and that it should eventually be razed rather than replaced. The suggestion of 25% of net farm income for a special fund was found to be untenable and for 1976-77 the budget assumes the use of \$16,000 of farm income for general Academy operation. Transfers from the farm manager during the fiscal year in excess of that amount will go into a special fund for capital improvements on the farm up to a limit agreed to by each Board of Directors from year-to-year. Since farm income is such a significant part of the Academy's operating budget, the Finance Committee must be involved in decisions concerning what amount of such income should be diverted for Academy operation. During 1975-76 the Academy had the use of over \$48,000, with about 25% coming from members' dues. Table IV shows the sources of these operating funds and how they were allocated to various aspects of the Academy's activities during the year.

One of the most active standing committees is the Student Programs Committee, chaired from 1970-1975 by Dr. Daryl Smith of UNI. The identity of the Iowa Junior Academy of Science came under some examination in 1975-76 as the Student Programs Committee personnel changed because of resignations and new appointments. Frank Starr replaced Smith as chairman. Dr. Edward L. Pizzini of the Science Education Center at the University of Iowa continued as Director of IJAS. The committee drew some attention to the IJAS identity problem when it proposed a revision of the bylaws of the Academy redefining IJAS so as to include programs for elementary students. The Board

Table IV. Sources and Disposition of Academy Operating Funds 1975-76

Operating Funds		Disposition				
Source	Amounts	Publications	Programs; Projects	Meetings, Etc.	General Administration	Reserves
Farm transfers	(11,000.00)	(See below: "From reserves")				(11,000.00)
*State	8,000.00	8,000.00	—	—	—	—
Dues	12,534.00	4,763.00	1,880.00	4,011.00	1,880.00	—
Sales	2,809.40	2,809.40	—	—	—	—
Interest	1,307.18	—	—	—	1,307.18	—
Contributions	536.00	100.00	436.00	—	—	—
Reg. fees	4,995.90	—	—	4,995.90	—	—
*UNI subsidy	750.00	750.00	—	—	—	—
*UI subsidy	300.00	300.00	—	—	—	—
*AAAS grant	465.00	—	465.00	—	—	—
From reserves	16,872.78	1,672.80	4,293.25	6,427.19	4,479.54	—
<b>TOTAL</b>	<b>48,570.26</b>	<b>18,395.20(38%)</b>	<b>7,074.25(15%)</b>	<b>15,434.09(32%)</b>	<b>7,666.72(15%)</b>	<b>(11,000.00)</b>
Administrative expense allocation included	20,267.72	5,065.00(25%)	3,039.00(15%)	7,092.00(35%)	5,066.72	—
Equipment purchase	2,600.00	—	—	—	2,600.00	—
*Non-Academy	9,515.00	9,050.00	465.00	-0-	-0-	-0-
Academy	39,055.26	9,345.20	6,609.25	15,434.09	7,666.72	(11,000.00)

referred the recommendation back to the committee on March 27, 1976 with its recommendation that "the Iowa Junior Academy of Science retain its historic emphasis on junior high and high school students but that the Student Programs Committee also encourage programs (outside the IJAS name) by which science can be promoted in the lower grades." It was further suggested that the Committee study the problem of identifying students as members of IJAS.

In 1975-76, the Student Programs activity of the Academy consisted of a wide variety of activities very similar to those reported in the previous two or three years. The IJAS Director's report indicated that both regional and statewide activities were conducted for students and teachers at all levels, including field programs, rocketry workshops, and museum trips. The emphasis at the secondary level included summer field programs, the UNI Science Symposium in November, and the Iowa Science and Humanities Symposium in February, Chicago trips, a symposium "Women in Engineering" and the Westinghouse Science Talent Search.

The Iowa Symposium in February brings together those students (and their teachers) who have been selected to present papers in a competitive setting. In 1975 Jayne Thorson of Twin Cedars Valley, Bussey, won her division at the National Symposium and participated in the World Symposium in London. She also presented her paper at the American Junior Academy of Science meeting in Boston in February 1976 along with Suzanne Chaffee of Decorah High School. In 1976 Jeffrey Gabler and Paul Thurmond of Lincoln High School, Des Moines, Judith Garwood and Pamela Nance of Kennedy High School, Cedar Rapids, Jeff Weston of Waverly-Shell Rock High School, and Suzanne Chaffee of Decorah High School, were selected to attend the National Science and Humanities Symposium at Georgetown University in Washington, D.C., May 19-22. Lyn Countryman of Adel-Desota High School and Anabel Preece of Marshalltown High School were chosen to represent Iowa at the A.J.A.S. meeting to be held in February 1977 in Denver in conjunction with the A.A.A.S. convention. All of the above students plus Kim Stangl of Kuemper High School, Carroll, and Tammie Hampton of Burlington High School were invited to be guests at the Academy's annual banquet and to receive a \$25 savings bond.

The Membership Committee met physically for the first time in at least nine years in the spring of 1976 at Clarke College during the annual meeting there. Executive Director Hanson explained to the members present how the central office goes about promoting new memberships and maintaining membership records. It was agreed that the prior efforts of the committee to promote membership by having the committee write letters to potential members in the various areas of the state had been ineffective. New ideas were generated for membership promotion and in connection with that the membership categories came under close examination. Another meeting of the committee took place on June 3, 1976, at Dick's Cafe in Toledo. The following excerpts from the minutes of that meeting indicate the concerns of the Membership Committee as we move into 1976-77:

"Lengthy discussion resulted in a consensus of those present that the Fellow category no longer has any significance in view of the fact that there are more than 450 Fellows in a membership of 1425, plus a very large percentage of the Associates who could become Fellows by just applying, since they undoubtedly are qualified. Many Associates probably are unaware of the fact that they are not Fellows and the matter is of little importance to them. . . It was agreed that membership in the Academy should be open to anyone but that a category should exist for those not actively involved in research, teaching, or administration in science. . . The 'corporate and institutional member' categories were discussed with Hanson pointing out that we have only one corporate member (Collins Radio) of six that joined in the category in 1968-69 and dropped away in the years that fol-

lowed. There never have been any institutional members; no guidelines were ever established and no effort was ever made to develop this category. The category of 'sustaining member' was mentioned as a fairly common designation for groups and/or individuals that contribute more than regular dues. After several different approaches to this matter during the meeting, the committee arrived at the consensus that the corporate and institutional member category should be changed to 'sustaining member' and that the latter designation should not apply to individuals. Individuals should be provided, as in the past, with the opportunity to make contributions to the Academy but should not be referred to as 'sustaining members'."

The committee suggested a revision of Article III of the Constitution and Article VI of the Bylaws. The effect of these would be to remove the "Fellow" category altogether (except for the Distinguished Fellow Award) and make every membership category equal in terms of voting and office-holding privileges. Corporate and institutional memberships would be replaced by "sustaining memberships". No action on these changes can occur until the 1977 annual meeting but the committee and the Board agreed to declare a moratorium on transfers to Fellow status in the meantime.

The Membership Committee's approach to membership promotion now involves mailings by the Executive Director from the central office, designation of campus representatives to promote participation in the Academy's programs and thereby ultimately promote interest in membership, continued encouragement to non-members to contribute papers at the annual meeting, and personal contacts with potential sustaining members to point out specific programs worthy of support by businesses and industry.

Membership counts leveled off in 1974-75. In 1975-76 the total began to rise after a four-year decline. As of July 1, 1976, the total membership is back up to the total of 1972, as shown in the following table:

Membership Counts					
Date:	4/72	4/73	4/74	7/75	7/76
Associate	711	679	680	638	663
Student	191	196	155	160	156
Fellow	461	458	433	481	488
	1363	1333	1268	1279	1307
Life Member	18	18	23	26	34
Emeritus	68	68	66	65	66
<b>TOTALS</b>	<b>1450</b>	<b>1419</b>	<b>1357</b>	<b>1370</b>	<b>1407</b>

As usual in 1976, about 10% of our members had not paid dues for the current year by July 1. Most of these delinquent members will have to be dropped at the end of the year, according to past experience.

The Publications Committee met in October of 1975 and made a number of recommendations that were approved by the Board of Directors on November 8. These are summarized here:

1. That alternative printing arrangements for the PROCEEDINGS be investigated by the Executive Director.
2. That the Board endorse 3 issues of the IOWA SCIENCE TEACHERS JOURNAL per year.
3. That issue no. 2 of the PROCEEDINGS include the Annual Report or portions of it, copy to be prepared by the Executive Director and edited by the Editor.
4. That the Academy publish a series of monographs whenever appropriate, separate from the PROCEEDINGS, but edited and reviewed by the PROCEEDINGS editorial board, final approval for publication and printing of each one to be made by the Board of Directors.
5. That it be editorial prerogative to combine issues of the PRO-

## CEEDINGS.

6. That the subscription price of the PROCEEDINGS be raised to \$10.00 for regular subscribers and \$5.00 to the ISU Library for copies purchased for their exchange program, beginning with Volume 84 for 1977.

The PROCEEDINGS have been printed in Cedar Falls starting with Volume 83 (1976) by offset, using modern photo-typesetting as opposed to letterpress methods used previously. Close working relationships with both the typesetting firm and the printer have been developed by the managing editor (Executive Director Hanson) and the PROCEEDINGS can now be issued as rapidly as the submitted manuscripts can be reviewed, typeset, and pasted up into 40-page issues. The historical importance of this cannot be overemphasized — the delays in the issuance of the PROCEEDINGS have been a recurrent theme for over 80 years.

The IOWA SCIENCE TEACHERS JOURNAL was moved to Cedar Falls in 1975. The first issue under A. C. Haman's editorship was dated October 1975. An agreement with the University of Northern Iowa was reached to co-sponsor this publication provided the Academy makes it available free-of-charge to any Iowa secondary school science teacher who requested it. UNI pays for the printing of one issue per year and the mailing of all issues; the Academy pays the rest of the cost, which amounts to about 75% of the total. The JOURNAL now goes to the Science Teaching Section (376), other Academy members that request it (200), non-member secondary school teachers who have requested it (306), subscribers (17), each science department chairperson in Iowa secondary schools (756), and miscellaneous out-of-state exchanges (137). This is a total of 1,792. The potential circulation among secondary teachers could add 2,000 to this number as time goes on. It is being issued three times per year at times selected to be the most effective from the standpoint of readership. Editor Haman has set up review boards to pass on the acceptability and technical accuracy of manuscripts. Executive Director Hansen acts as managing editor.

A request for the Academy to sponsor a monograph series called "Checklist of the Vascular Plants of Iowa" from Lawrence J. Eilers was received in October 1975 and approved by the Board of Directors in November. Eilers will work jointly with Dr. R.F. Thorne of the Rancho Santa Ana Botanic Garden, Claremont, California on the series.

The Recognition and Awards Committee did not select anyone to receive the Distinguished Fellow Award in 1976. The IAS Award of Merit was, however, presented to six individuals and one firm. Two persons — Edwin M. Vaughn and Dean Stroud — were recognized for service to the young people of Iowa through Academy-related activities. Two others — John O. Chellovold and Willard J. Poppy — were recognized for inspirational teaching at the college level and for leadership in the Iowa Academy of Science. Two other individuals were recognized for contributions to their own scientific disciplines — Kenneth Christiansen and Frank F. Riecken. Pioneer Hi-Bred International was recognized for outstanding contributions to the science of genetics and cytogenetics and for support of science education and research in Iowa. Each awardee was presented a framed engraved certificate with a specially-worded citation.

Six science teachers were honored at the 1976 annual meeting under the Academy's Excellence in Teaching Awards Program which is coordinated by David McCalley of UNI with the cooperation of AAPT, NABT, and ISTS. Each of the following teachers received the Academy's citation in the form of an engraved plaque and letters from Governor Ray, the president of the Academy, and the president of the Iowa Science Teachers Section:

George Davis, Chemistry teacher at Reinbeck High School;  
Elwood Garlock, Science teacher at Harding Junior High School in Cedar Rapids;  
Gary Jensen, Earth Science teacher at Roland-Story Junior High

School;

Glendon Peterson, Physics teacher at LeMars High School;  
Sondra Waltz, Elementary science teacher at Norwalk;  
Stanley Whelchel, Biology teacher at Waterloo Central High School.

During the year 1975-76 the Academy's Research Grants Committee awarded \$200 grants to support each of the following projects:

Robert P. Lancaster, Graduate Student, Department of Earth Science, UNI - \$200 to cover the cost of printing the questionnaires, obtaining the mailing labels, and partially supplement postage cost of a research project that will survey Iowa's earth science teachers as to the current curriculum and educational qualifications so that a revision of earth science curriculum can be developed at the university level.

William H. Moorcroft, Assistant Professor, Department of Psychology, Luther College, Decorah, Iowa - \$200 to purchase rats and help pay for their upkeep during the duration of the experiment "The effects of varying doses of psychoactive drugs on the offspring of pregnant rats: d-amphetamine sulfate. (Experimental work being conducted by undergraduate students.)"

Robert Franke, Professor, Department of Botany and Plant Pathology, Iowa State University - \$200 to pay 50% of the salary of an undergraduate laboratory assistant in a research project to determine the effects of known relative humidities on the morphology of the fructification and the time of fruiting of a myxomycete, *Didymium iridis*.

Asa Black, Jr., Assistant Professor, Department of Anatomy, University of Iowa - \$200 to pay 20% of the salary of an undergraduate laboratory assistant (the balance to be paid by federal work study grant funds) and for chemicals for a research project involving the role of cyclic AMP in neural transmission in the superior cervical ganglion of the cow. This research will add to our knowledge of the role of this cyclic nucleotide in neural function, since it is thought to be the second messenger involved in the modulation of activity of the principal ganglionic neurons by the dopamine-containing interneurons (small, intensely fluorescent cells) of the ganglion.

Harvey G.A. Johnson, Associate Professor of Biology, Waldorf College, Forest City, Iowa, and Barbara J. R. Gudmundson, Engineering Department, Metropolitan Waste Control Commission, St. Paul, Minnesota - \$200 for chemical supplies, travel, and salary for undergraduate students working on project. This research project is to gather the first baseline data on the benthic macrofauna of the Winnebago River in Minnesota and Iowa by using artificial substrate samples.

The Academy receives \$465 per year from the AAAS (one dollar per Academy member that is also a member of AAAS) and supplements this with another \$535 from Academy funds.

Early in October 1975, Dr. Stanley Grant, State Geologist and Director of the Iowa Geological Survey, contacted the Academy office to initiate some discussions concerning the possible involvement of the Academy in the formation of a "Governor's Science and Technology Advisory Panel". Grant later met with the Board of Directors in November and presented several facts about science advisory groups in other states and pointed out that at the federal and state level there is greatly increased interest in science advisory input to the government. Grant described his concept of an advisory group of 25-30 people representing both academia and industry patterned somewhat after an advisory group in Maryland. Legislation would be required to create a Governor's Science Advisory Council. After Grant left, the Board continued the discussion of the Academy's role

in this matter, and a motion was passed that the Governor be informed that the Academy Board is willing to appoint an *ad hoc* committee to meet with the Governor or his representative(s) to explore the formation of an advisory group with IAS cooperation and/or participation.

Later in the year, the following committee was appointed to serve as the *ad hoc* "GSTAP Committee";

Donald Biggs, Iowa State University (earth science)  
 Richard Bovbjerg, University of Iowa (zoology)  
 William L. Brown, Pioneer Hi-Bred International (president)  
 Paul Christianson, Cornell College (biology)  
 Craig Davis, Iowa State University (environmental studies)  
 H. Bruce Friedrich, University of Iowa (chemistry)  
 Irvin H. Gerks, Collins Radio (retired)  
 Paul Joslin, Drake University (science education)  
 Virendra Patel, University of Iowa (engineering)  
 Paul Meglitsch, Drake University (biology; President of IAS)  
 Willard Poppy, University of Northern Iowa (physics-emeritus, President-elect of IAS)  
 Robert W. Hanson, University of Northern Iowa (chemistry and Executive Director of IAS)

The committee met for the first time on April 8 in Dubuque the day before the Academy's annual meeting started. Stanley Grant was not able to attend so a tape and script were used to introduce the committee to the assigned task. The meeting started at 2:30 p.m. and continued after dinner. The basic problem of scientific advice in general and to political entities in particular was explored in depth. A rough model based in part on the Maryland council was developed. The next day some members of the committee met with Grant to review some of the problems that had been discussed the day before. It was Grant's conclusion that the problems could be overcome and agreed to use the rough model in a discussion of the matter with the Governor during the next few weeks.

The Governor approved of the model and a second meeting of the committee was scheduled for July 27, 1976 to refine the model and prepare a list of several possible nominees for appointment to the proposed council. During 1976-77 the Academy may be instrumental in forming an advisory mechanism to state government, an objective the Academy has had for many years.

During 1975-76 the Iowa Academy of Science was well-represented at the meetings of the Association of Academies (formerly the Academy Conference) which meets annually in conjunction with the AAAS convention. Iowa's two representatives for several years have been Frank Starr of the Waterloo School System and Robert W. Hanson, the Academy's Executive Director. Starr has served well in the capacity of chairman of the American Junior Academy of Science. His duties have ranged from chaperoning two Iowa students at the AJAS meeting to planning and scheduling the entire AJAS program. In 1976 he was elected to serve in this capacity again. Hanson presented papers to the gathering of AAS representatives in both 1975 and 1976 — one dealing with the involvement of undergraduate students in state academy activities, another dealing with the history of the Iowa Academy. In 1976 Hanson was elected secretary-treasurer of the Association of Academies of Science.

At the 1976 meeting of the AAS in Boston, one full day was devoted to a workshop on ways that the AAAS might facilitate the work of the state and local academies of science. When the executive committee of AAS met in Washington on May 21, 1976, most of the meeting was devoted to further specific development of the ideas brought up in Boston in February. Among the ideas having more immediate promise were the following:

1. Student-scientist interaction. This was already operative at the Boston meeting and plans are underway for the 1977 meeting

in Denver when busloads of students will be encouraged to attend. Scientists of national reputation who are in attendance will be asked to meet informally with students for "rap" sessions.

2. AAAS sponsorship of symposia at state academy meetings. The use of video or audio tapes of certain AAAS symposia at local academy meetings was considered a viable possibility, with the tapes being loaned by the division of science education of AAAS. Local people would form discussion panels.
3. Co-sponsorship of public lectures by state academies and AAAS; the possible funding of a national visiting scientist program. AAAS would be the grant administrator; local and state academies would contribute a nominal sum to participate (about \$750 per year). A committee of AAS will be formed to pursue this plan under AAS-AAAS aegis.
4. The need for a new look at science education needs and the changing role of junior academies. The division of science education of AAAS is proposing to conduct a thorough study of the status of science education in the near future. There is a recognized need also for a study of the junior academy movement such as the Hopperton Report of 1959.
5. Leadership workshops on science career guidance for academy members interested in working with young people. The possibility of training senior citizens for career guidance roles that would relate their own scientific careers to youth was considered desirable and viable as well as working with the talented handicapped.
6. A survey of the state academies for information about science advice to state government was an expressed need in connection with a general recommendation that the AAAS make a more deliberate effort to publicize the activities of state academies and the programs and services of AAAS. The AAAS news section of SCIENCE was suggested as a logical place for such information, using space perhaps once or twice each year.

As a result of the participation of Richard Scribner of the AAAS staff in the Iowa Academy's annual meeting in April 1976, he has expressed great interest in our efforts to set up a science advisory mechanism to Iowa state government and has offered to assist us in promoting a conference in Iowa that would deal with the science advice problem generally. AAAS would co-sponsor such a conference if the IAS Board of Directors approved of it. (The *ad hoc* committee on the Governor's Science Advisory Council has recommended that such a conference not be held before the fall of 1977.)

The "first" meeting of the Board of Directors including new members elected in 1975 was held in Cedar Falls on June 20, 1975. The budget for 1975-76 was the main agenda item. The use of funds to improve the multiple-purpose modular classroom building on the farm was discussed and a motion was passed to the effect that no further funds be used for that purpose until a survey by the Farm Committee showed a probably significant amount of use for it. A budget involving \$44,736 of proposed disbursements was adopted, based on anticipated receipts of \$15,390, an \$8,000 state appropriation, plus an unspecified additional amount from farm income and/or savings. Based on farm income experienced the year before it was felt that the budget could be met without a dues increase. The Board endorsed the executive secretary's recommendation that a vigorous membership campaign be inaugurated in the fall of 1975 instead of proposing a dues increase.

The second meeting of the Board took place on November 8, 1975, at Cedar Falls. Hanson reported on the preparations underway for the 1976 annual meeting. The Elections Committee

reported their suggested slate of candidates for the 1976 election. A report from the Student Programs Committee recommended a By-laws change extending the concept of the Junior Academy to elementary students. The Board referred the matter back to the committee because no rationale for it had been presented. Hanson recommended that an agreement be drafted on behalf of the Board of Directors with the University of Northern Iowa administration dealing with a 3-to-5 year commitment by UNI, the Academy Board, and the Executive Director concerning his position with the Academy and UNI. The Board agreed to the development of such an agreement. A second printing of the 1970 monograph "Water Resources of Iowa" was authorized. Other matters taken up at that meeting are covered elsewhere in this report.

The Board met again two weeks before the annual meeting on March 27, 1976, at Cedar Falls. The Board acted to instruct the Student Programs Committee to continue the historical emphasis on the secondary school student in the Junior Academy and to study the IJAS model in terms of identifying student members. The report of the annual election was received and the following were declared elected: Lois Tiffany, President-elect; Donald Pilgrim, Treasurer; David Fagle and Margaret Watson, Directors. A revision of the Constitution, Article IV, was included in the vote and passed. (The text of the revision is included under the Minutes of the Annual Business Meeting.) Motions were passed raising the annual dues to \$12.00 for professional members and \$240 for life members and to restrict the mailing of the final program and abstracts for the annual meeting to

program participants, registrants, and those that request them. Other motions passed dealt favorably with the three-party agreement concerning a three-year appointment of the Executive Director and making the Farm Committee a standing committee of the Academy. Several Bylaws revisions were approved for presentation at the annual business meeting, dealing with the dues increase and auditing procedures. (The text of these revisions is included with the Minutes of the Annual Business Meeting.)

The Board met again on June 11, 1976, with two new members replacing Siemer and Knudson. (Tiffany stayed on as President-elect.) Several new matters were discussed: possible joint seminars co-sponsored by AAAS and IAS under the AAAS Regional Seminar Program, the need to assist high school teachers in preparing research grant proposals for the funds provided for that purpose by AAAS, more specific planning for further joint meetings with other state academies contiguous to Iowa, the success of the Short Course on Industrial Chemistry and the desirability of continuing this type of feature at our annual meeting, the question of affiliation procedures by various organizations with the Academy, the question of illustration charges to authors for the PROCEEDINGS and page charges to non-members. The budget for 1976-77 was adopted, involving proposed disbursements of \$44,584 based on anticipated receipts of \$20,584, a state appropriation of \$8,000, and \$16,000 of farm income to be received before the end of the fiscal year. The successful transition of the printing of the PROCEEDINGS to Cedar Falls from Iowa City was noted with satisfaction.

Other matters discussed at that meeting are mentioned elsewhere

### FINANCIAL STATEMENT

Iowa Academy of Science, Inc.  
Cedar Falls, Iowa

#### Summary of Cash Transactions For the Year Ended December 31, 1975

	Checking Account 1st National Bank	Savings Account Cedar Falls Svgs. & Loan	Savings Certificates Cedar Falls Svgs. & Loan	TOTAL
CASH BALANCE Jan. 1, 1975	\$ 5,017.74	\$13,200.00	\$ 9,000.00	\$27,217.74
ADD: RECEIPTS	49,866.13	-0-	-0-	49,866.13
LESS: DISBURSEMENTS	(52,977.43)	-0-	-0-	(52,977.43)
	<u>1,906.44</u>	<u>13,200.00</u>	<u>9,000.00</u>	<u>24,106.44</u>
TRANSFERS				
From Checking to Savings	(300.00) (10,000.00)	300.00		-0- -0-
From Savings to Checking	10,000.00 3,000.00	(10,000.00) (3,000.00)	10,000.00	-0- -0-
CASH BALANCE Dec. 31, 1975	<u>4,606.44</u>	<u>500.00</u>	<u>19,000.00</u>	<u>24,106.44</u>

Note: The Academy's books are audited on a calendar basis, whereas the Academy's fiscal year runs from July 1 through June 30. The report reflects only funds administered by the Executive Director and does not include the farm operation in Grundy County, Iowa, managed by Hertz Farm Management, Inc., of Nevada, Iowa. Funds are periodically transferred to the Academy and are reflected on the Academy's books on the transfer date.



in this report. The summer of 1976 finds the Iowa Academy of Science on a continued upward movement that started with the celebration of our centennial in 1975. Increasing numbers of unsolicited inquiries about membership are a satisfying clue that the image of the Academy has been improved by the deliberate efforts officers and committees have made to enhance the quality of the Academy's place in the scientific community.

# ACADEMY LEADERSHIP 1975-76

## Officers

President — Paul Meglitsch, Drake University, Des Moines  
 President-Elect — Willard Poppy, University of Northern Iowa, Cedar Falls  
 Past-President — George Knudson, Luther College, Decorah  
 Treasurer — Donald Pilgrim, Luther College, Decorah  
 Editor — Thomas E. Rogers, Cornell College, Mount Vernon  
 Executive Director — Robert W. Hanson, University of Northern Iowa, Cedar Falls

## Directors:

Ruth N. Siemer, Coe College, Cedar Rapids (1976)  
 Lois H. Tiffany, ISU, Ames (1976)  
 Chalmer J. Roy, ISU, Ames (1977)  
 Martin J. Ulmer, ISU, Ames (1977)  
 Paul Christiansen, Cornell College, Mount Vernon (1978)  
 Donald Huffman, Central College, Pella (1978)

## Section Chairpersons 1975-76

Anthropology/Archaeology — R. Clark Mallam, Luther College, Decorah  
 Botany — Edward T. Cawley, Loras College, Dubuque  
 Cell Biology — Asa C. Black, Jr., University of Iowa, Iowa City  
 Chemical Education — Joe D. Woods, Drake University, Des Moines and Donald Langr, Iowa Central Comm. College, Fort Dodge  
 Chemistry, Inorg. — Gerald D. Flesch, ISU, Ames  
 Chemistry Org. and Biol. — David Hampton, Wartburg College, Waverly  
 Conservation — James Eckblad, Luther College, Decorah  
 Economics — J. Peter Mattila, ISU, Ames  
 Engineering — S. Keith Adams, ISU, Ames and Theodore F. Smith, University of Iowa, Iowa City  
 Geology — Dennis C. O'Brien, Drake University, Des Moines  
 Mathematics — Lawrence A. Hart, Loras College, Dubuque  
 Physics — Melvin Sick, Iowa Central Comm. College, Fort Dodge  
 Physiology — Donald B. Stratton, Drake University, Des Moines  
 Psychology — Irwin P. Levin - University of Iowa, Iowa City  
 Science Teaching — Ken Frazier, Boone  
 Zoology — Richard S. Wacha, Drake University, Des Moines

## Editorial Review Board

Thomas E. Rogers, Editor and Chairman, Mount Vernon  
 Nels Lersten, Associate Editor, Ames  
 William Savage, Associate Editor, Iowa City  
 Carol Oliven, Associate Editor, Cedar Rapids  
 Lyle Sendlein, Associate Editor, Ames

## Standing Committees 1975-76

### Annual Meeting Committee

James Christiansen 1978  
 Verner Jensen 1978

Sister Marguerite Neumann 1977  
 Gene Lucas 1977  
 H. T. Horner, Jr. (chairman) 1976  
 David Roslien 1976  
 Board Liaison: Executive Director (R.W. Hanson)

### Election Committee

George Knudson 1977  
 John Chellevoid 1977  
 Robert Drexler 1977  
 Robert Yager 1976  
 Clifford McCollum (chairman) 1976  
 Arnold Haugen 1976  
 Board Liaison: Lois Tiffany

### Finance Committee

Donald Pilgrim (chairman) 1976  
 Harold Swanson 1978  
 David Hampton 1978  
 John McCurdy 1977  
 Edwin Vaughan 1977  
 Robert Hulbary 1976  
 David Fagle 1976  
 Board Liaison: Donald Pilgrim (Treasurer)

### Membership Committee

George Knaphus 1978  
 Gordon W. Searle 1977  
 Dorothy Taylor 1977  
 William L. Brown 1977  
 Robert Embree 1976  
 Rodney A. Rogers (chairman) 1976  
 Board Liaison: Lois Tiffany

### Publications Committee

Margaret Watson (chairman) 1978  
 Richard Wacha 1978  
 David Pippert 1977  
 Nels Lersten 1977  
 Darrell Eyman 1976  
 Carol Oliven 1976  
 Thomas E. Rogers (ex-officio)  
 Board Liaison: Martin Ulmer

### Recognition and Awards

Donald Huffman 1978  
 Elwood Garlock 1978  
 Kenneth Carlander 1977  
 Lena Keithahn 1977  
 Robert Goss (chairman) 1976  
 Leland Johnson 1976  
 David V. McCalley (ex-officio)  
 Board Liaison: Donald Huffman

### Social Implications Committee

Paul Joslin (chairman) 1978  
 Ruth Siemer 1978  
 Cameron Christensen 1977  
 Edward Cawley 1977  
 Duane Toomsen 1976  
 Clifford McCollum 1976  
 Board Liaison: Ruth Siemer

*Student Programs Committee*

Frank Starr (chairman)	1978
Gary E. Downs	1978
Daniel Sheldon	1977
Don Murphy	1977
Gordon Thies	1976
Daryl Smith	1976
Edward L. Pizzini (ex-officio)	
Board Liaison: Chalmer Roy	

**Special Committees 1975-76***Academy (Parish) Farm Committee*

Roger Landers (chairman)
H. T. Homer, Jr.
Bernard Clausen
Elmer Hertel
George Davis
Board Liaison: Paul Christiansen

*Research Grants*

James Christiansen (chairman)
William Deskin
Verner Jensen
Board Liaison: Robert W. Hanson

### MINUTES OF THE ANNUAL BUSINESS MEETING APRIL 9, 1976

The meeting was called to order at 1:15 p.m. in the Mary Jocita Dining Hall at Clarke College, Dubuque, by President Paul Meglitsch, following the luncheon. Approximately 125 persons were in attendance.

President Meglitsch introduced Executive Director Hanson to present the report of the Board of Directors, as follows:

Beginning in 1975 the Board of Directors adopted a three-meeting-per-year schedule, with the first meeting on June 20, 1975. The main business of the new summer-time meeting was the finalization of the 1975-76 budget and to develop charges to the various Academy committees. Donald Pilgrim of Luther College was named Treasurer to replace Paul Rider who resigned in May for the rest of his term. Plans for the fall tri-state meeting at Decorah were reviewed.

The second meeting of the Board took place on November 8. Reports were received from the Annual Meeting Committee, the Elections Committee, the Publications Committee, the Student Programs Committee, the Social Implications Committee and others. Three of the more important actions of the Board concerned the Parish farm, recommendations from the Publications Committee and discussion with Stanley Grant, State Geologist, concerning the possible participation of the Academy in the formation of a Governor's Science and Technology Advisory Panel. Taking these one at a time:

Discussions covering a three-year period led to a meeting of 23 persons from the Social Implications Committee, the Finance Committee, and the Board of Directors at the farm on September 13. Discussions at that meeting dealt with the role the farm might play as an educational resource, its operation with sound ecological principles in mind, and its role as a source of income for Academy operation. Subsequently and as a result of that meeting the Board adopted ten statements of philosophy or positions concerning the Parish farm, which I will paraphrase here: that no significant effort be made to develop or promote the use of the farm for educational

purposes but that it should be readily available for such use and for approved research; that the Academy's financial stability should not be dependent upon income from the farm and that a maximum dollar amount should be budgeted from farm income to the Academy's operational budget, leaving some proceeds to be used for capital improvements over the years; the Farm Committee should manage the farm as an exemplary example of farm practices that are socially and environmentally responsible and yet economically productive.

The Publications Committee recommended, with the Board's approval, that alternative printing arrangements for the PROCEEDINGS be investigated with a view toward cutting down on the delays that we have been experiencing, and that the Academy publish a series of monographs whenever appropriate, and that the subscription price of the PROCEEDINGS be increased to \$10.00 per year in 1977.

As a result of conversations with the State Geologist, an *ad hoc* committee was subsequently formed to investigate the possibility of assisting in the creation of a Governor's Science and Technology Advisory Panel. That committee met yesterday for several hours and a report from their deliberations will appear in the May issue of the I.A.S. BULLETIN.

The last meeting of the 1975-76 Board of Directors was held on March 27, 1976. Reports were received from most standing committees and the Farm Committee. Consideration of some findings on alternative printing methods led to the distinct possibility that the PROCEEDINGS will be printed more on schedule in the future, but the Editor emphasized that manuscripts must be submitted for consideration early and galleys must be returned promptly if delays are really to be minimized.

The Board reaffirmed its position on the Parish farm and it now appears that orderly procedures based on the Board's position can follow. A plan for landscaping the more visible frontage of the farm is forthcoming, but the Farm Committee and its chairman, Roger Landers, deserves the commendation of the Academy in making numerous improvements to the cultivated land as well as to the buildings and their surroundings, mostly through great personal effort. The Board recommends that the Farm Committee become a standing committee in 1977.

Several bylaws revisions were approved by the Board at the spring meeting for presentation today. These deal with a dues increase and some editorial changes due to the adoption of a revision of Article IV Section 3 and Section 4 of the Constitution during the recent election by mail ballot. They will be distributed for action by this assembly in a few minutes.

The meaning of "fellow status" came under scrutiny by the Board and the matter has been referred to the Membership Committee for study and recommendation.

The Board also discussed the future of the Iowa Junior Academy of Science and referred the matter to the Student Programs Committee with some recommendations.

The Finance Committee, as of 1975, is charged with a more significant role in the preparation of the Academy's budget. Preliminary information for that purpose was referred to them and the committee will meet tomorrow.

A three-year agreement involving the Executive Director was approved by the Board and the University of Northern Iowa.

The first meeting of the new Board is scheduled for June 11 and all committees are urged to get their reports to the Academy office by the end of May.

Respectfully submitted on behalf of the  
Board of Directors  
Robert W. Hanson  
Executive Director

Donald Pilgrim was introduced to give the Treasurer's report, which was a brief statement of the current assets of the Academy and a report that he and a member of the Finance Committee (David Hampton) had audited the books for 1975 and found them to be accurate. As of March 31, 1976, the Academy's assets amounted to \$2,810.60 in checking and \$19,500.00 in savings accounts, a decrease of \$4,026.85 during the preceding 12 months.

Clifford McCollum presented the report of the Election Committee and summarized their work during the year. The election was conducted by mail ballot with a March 26 deadline. The candidates were as follows (with the elected candidate starred):

President-elect:	Lois Tiffany*, Karl E. Goellner
Treasurer:	Donald Pilgrim*, John McCurdy
Directors:	David Fagle*, Margaret Watson*, Irving Fishman, David L. Pippert

The elected officers were introduced to the assembly.

The vote on the revision of Article IV, Sections 3 and 4 and Article V, Section 2 of the Constitution, also conducted by mail ballot, was 507 yes and 28 no. The revised sections read as follows:

#### ARTICLE IV — OFFICERS

##### *Proposed Revision*

Section 1. *Treasurer*. The Treasurer shall be elected for a three-year term in accordance with the Bylaws; his term of office shall commence at the adjournment of the Annual Meeting. The Treasurer shall serve as the Chairman of the Finance Committee. He shall arrange for the audit of the general operating account and the non-operating funds and endowments of the academy that are in the custody of the Executive Director and shall prepare an annual financial statement of the Academy's assets. The Treasurer shall perform such other duties and have such powers as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the remainder of the unexpired term by a Fellow designated by the Board of Directors.

##### *Proposed Revision*

Section 4. *Executive Director*. The Executive Director shall be appointed by the Board of Directors at its Annual Meeting. His term of office shall commence on the first of July following his appointment. He shall be custodian of the funds of the Academy

and shall collect all monies due the Academy. The Executive Director will perform such other duties and have such powers as required by this Constitution, or by the Bylaws, or by the Articles of Incorporation, or by the Board of Directors. In event of his resignation, absence, disability, or death, his duties shall be assumed for the balance of the unexpired term by a fellow appointed by the Board of Directors.

#### ARTICLE V — BOARD OF DIRECTORS

##### *Proposed Revision*

Section 2. *Membership*. The Board of Directors shall consist of twelve members, including the President, President-elect, the Editor of the *Proceedings*, the Executive Director ex-officio non-voting, plus six additional Fellows to serve three year terms, two to be elected at each Annual Meeting of the Academy. None of the six elected Directors shall be chairmen of Standing Committees.

Hanson distributed the text of several bylaws revisions and President Meglitsch asked for a motion of adoption. A motion to adopt the revisions reproduced below was made and seconded, and the motion carried by voice vote without discussion from the floor.

1. Change all references to "Executive Secretary" throughout the Bylaws to read "Executive Director".

#### 2. ARTICLE XII — FINANCE

3c) The dues shall be twelve dollars per year for Fellows and Associates and four dollars per year for Student Associates.

3d) Any member in good standing may become a Life Member by making a dues payment of \$240 under terms set by the Board of Directors.

Section 6. The financial records of the Academy in the custody of the Executive Director shall be audited annually by the Treasurer and one other member of the Finance Committee named by the Board of Directors or by a Certified Public Accountant at the pleasure of the Board of Directors. The report of the audit of the calendar year just past shall be presented to the Board of Directors at its next Annual Meeting.

The Annual Business Meeting was adjourned at 1:50 p.m.

Respectfully submitted,

*Robert W. Hanson*  
Executive Director