

## ASSOCIATION NEWS

MINUTES OF THE 14TH ANNUAL MEETING OF THE  
AMERICAN MOSQUITO CONTROL ASSOCIATION,  
WASHINGTON, D. C., FEBRUARY 23-26, 1958

RECORDED AND REPORTED BY A. F. GEIB

A meeting of the Board of Directors of the A.M.C.A. was convened at the Willard Hotel, Washington, D. C., 10 a.m., February 23, 1958 by Association President A. W. Lindquist.

Present were: A. W. Lindquist, President; John W. Hirst, President-elect; A. D. Hess, Vice-President; T. G. Raley, Executive Secretary; L. W. Smith, Treasurer; A. F. Geib, Recording Secretary; Fred Stutz, Past President (1957); R. F. Peters, Past President (1956); Bob Vannotte, National Advisor; Regional Directors—D. M. Jobbins, N. Atlantic; W. E. Bickley, S.E. Central; Sam Minnich, S. Atlantic; D. W. Micks, S.W. Central; C. F. Scheel, N.E. Central; C. D. Grant, S. Pacific; C. M. Gullin, N. Pacific; T. A. Schoenfeld, N.W. Central; B. Hocking, Canada.

Absent was: Regional Director H. P. S. Gillette, Mexico and S. America.

Committeemen and others attending from time to time were: Don Collins, Rowland Dorer, Ernestine Thurman, F. C. Bishopp, R. A. Hoffman, W. C. McDuffie, J. E. Graham, R. L. Armstrong, Don Johnson, John Porter, Mrs. Margaret G. Slater, Ed Davis, Chris Williamson, Bailey Pepper, John Mulrennan and Chester Robinson.

It was moved by Bickley that the minutes of the 13th Annual Meeting of the A.M.C.A. be approved as published in the June 1957 issue of *Mosquito News*, seconded by Grant; carried.

President Lindquist appointed the following to the Resolutions Committee: Chairman, R. F. Peters; Members, Col. R. W. Bunn, P. B. Brockway, Jr., and R. L. Vannotte.

President Lindquist reported to the membership (Attachment #1).

The President called for the report of the Nominating Committee. Submitted by Chairman Stutz (Attachment #2).

Treasurer Lester Smith presented a report on the financial affairs of the Association and audit of accounts (Attachment #3).

Report of the Editor of *Mosquito News*, presented by Don Collins (Attachment #4).

Discussion was held concerning *Mosquito News*, the official publication of the Association. It was moved by R. F. Peters that the Association acknowledge appreciation for the excellent manner in which Don Collins, Mrs. Slater and the Editorial Staff are handling and preparing *Mosquito News*; motion was seconded by Hess; carried.

Report from the Committee on Publication of *Mosquito News* was presented by Hirst for Twinn (Attachment #5).

Peters recommended that authors of invitational papers be extended the courtesy and option of having their papers published.

Report from the Committee on Finance was presented by Scheel (Attachment #6).

Following presentation, Raley suggested that additional funds, a greater amount than provided last year, be made available for the publication and mailing of *Mosquito News*.

Hess moved that \$8500.00 be budgeted for the publication and mailing of *Mosquito News* for 1958 (Vol. 18); seconded by Peters; motion carried.

Hirst suggested that a committee be appointed to review itemizing the budget with reference to the primary cost of printing and handling reprints. The President

appointed Hess, Jobbins and Micks to work with the Treasurer and the Finance Committee on this revision.

Raley recommended that budgeted travel expenses be equally divided among the authorized officers of the Association eligible for travel expense: Executive Secretary, Editor of *Mosquito News*, Treasurer and Advertising Manager.

Peters suggested the formation of a Ways and Means Committee, composed of Past Presidents of the Association, to review the long range objectives of the Association, methods of financing and policy matters. No action taken.

Peters moved acceptance of the Finance Committee report; seconded by Hirst; carried.

The National Advisor, R. L. Vannote, reported on his investigation into the potentialities of grants-in-aid to provide funds for specific Association activities (Attachment #7).

Report from the Program Committee by Chairman Hirst: It required 1600 letters to develop and finalize the program which started slowly snowballing at the end. Wished to thank all those who aided, and particularly Bickley and Dorer who carried most of the work and responsibility. Grant moved acceptance of the report; seconded by Micks; carried.

Meeting recessed at 12:30 p.m. Meeting reconvened at 1:45 p.m.

Report from the Local Arrangements Committee, Bickley, Chairman: It appeared that revenues would amply cover costs for this annual conference. It was stated that a balance of approximately \$1500.00 was expected and could be credited to the Association toward the publication of *Mosquito News*, following completion of the conference. Bickley and the Committee were thanked and commended for a job well done.

Report of the Committee on Sale of Advertising Space. Reported by Scheel for Creadon (Attachment #8). Bickley moved acceptance with thanks; seconded by Hess; carried.

Report from the Good Neighbor Com-

mittee, Ernestine B. Thurman, Chairman (Attachment #9).

Hess moved acceptance of report and to establish a budget and authorize expenditures up to \$50.00 of Good Neighbor Funds in carrying out functions of this committee; seconded by Peters; carried.

Report from Committee on Miscellaneous Publications, Hirst, Chairman.

Hirst reviewed the editing problems of Bulletin #4, and recommended that Bulletin #4 no longer be considered for publication; seconded by Minnich. Following discussion, motion and second were withdrawn. Hess moved that further consideration of Bulletin #4 be postponed at this time, but that the existing manuscript be deposited in the Secretary's office, where review could be made in the future if desired; seconded by Micks; carried. Bickley commented that Bulletin #4 was important to Maryland and Lindquist remarked that it was important throughout the country.

Report from Committee on Sale of Miscellaneous Publications, Graham, Chairman (Attachment #10). Minnich moved acceptance of report as read; seconded by Scheel; carried.

Report from Membership Committee, Don Johnson, Chairman (Attachment #11).

Reported a net gain of 86 members during 1957, compared to 45 for 1956. Raley moved acceptance of report; seconded by Smith; carried.

Report from Public Relations Committee, Dorer, Chairman (Attachment #12).

Submitted written report containing several recommendations. Recommendations 1 and 2, related to pins, and no action was taken. Hirst presented plaques and pins to Past Presidents of Association. He also exhibited Association pins which he had made at his own expense and recommended their adoption and sale at this meeting. Hess moved acceptance of the Hirst pins as official insignia of the Association and to put them on sale at this meeting at \$1.50 apiece; seconded by Hocking; carried. (This action obviated

the necessity for action on the committee's recommendation.)

Recommendation #3. Increase of dues by \$1.00. It was moved by Hess to postpone action on this matter; seconded by Peters; carried.

Recommendation #4. Hess moved we adopt recommendation to prepare exhibit and the President appoint a committee to develop and have exhibit made with an authorized expenditure up to \$200.00; seconded by Hirst; carried.

Recommendation #5. Hess moved to defer action on this matter for one year; seconded by Peters; carried.

Recommendation #6. Bickley moved to refer this to the incoming bylaws committee; seconded by Hess; carried.

Recommendation #7. Bickley moved to refer this to the Publications Committee without recommendations; seconded by Hess, carried.

It was moved by Smith to accept report; seconded by Gjullin; carried.

Reopening report from Finance Committee for consideration of proposed budget (Attachment #13).

Committee review and recommendations reported by Hess.

1. That \$8,500.00 be allocated for the publication and mailing of *Mosquito News* for 1958.

2. The cost of reprints were self-sustaining, therefore, that this item not be included in the budget.

3. That the existing schedule on cost of reprints be increased by approximately 5 percent.

4. That the amount available for travel expense of Association officers be set at \$500.00, and its distribution be left flexible as to use.

5. That the amount of \$200.00 be budgeted for preparation of an exhibit. Hess moved that the revised budget be approved containing these recommendations; seconded by Scheel; carried.

Report from Committee on Research and Development, McDuffie, Chairman (Attachment #14). Minnich moved acceptance of report; seconded by Grant; carried.

Report from Historical Committee not presented. It is understood (Peters) that the Historical report is practically ready for publication.

Report from the Committee on Bylaws, Bailey Pepper, Chairman.

Only item for consideration is the method for election of officers of the Association. Recommended postponing action on this matter until committee can meet and review. Following committee review, recommendations will be submitted for consideration of this or the new Board. No action.

Report of the Committee on Legislation, Mulrennan, Chairman.

No legislative action for consideration. Minnick moved acceptance; seconded by Vannote; carried.

#### Other Business.

1. Report from the Committee on the Publication of an issue of *Mosquito News* in commemoration of W. H. W. Komp; Jobbins, Chairman. Review has not been completed—recommends the committee be continued. Smith moved acceptance; seconded by Minnich; carried.

2. A letter from Gray and Mulhern, recommending that not more than two citations per year be granted Association members in recognition of outstanding and meritorious service. Stutz commented that no action had been taken on previous consideration of this matter. Moved by Smith that letter be filed; seconded by Stutz; carried.

Report from Business Manager of Miscellaneous Publications, C. Williamson, Chairman (Attachment #15).

Bulletin #1—Supply is exhausted. Recommend that it be rewritten and brought up-to-date. If undertaken, could publication funds be obtained through Ford Foundation?

Bulletin #2—In good supply, with 900 copies available.

Bulletin #3—Over half sold, demand slow and in good supply, with 600 copies available.

Recommends further advertising to aid

sales, particularly in *Mosquito News*, calling attention to the availability of the publications. Hess moved acceptance of the report; seconded by Peters; carried.

Report from National Advisor, Vannotte.

Proposed that the Association sponsor educational and field meetings in various regions of the country, collaborating with the U. S. Fish and Wildlife Service on problems relating to waterfowl management and mosquito control. Requested sanction of a Wildlife Seminar this spring or fall and the scheduling of annual meetings with Fish and Wildlife thereafter.

Noted that a resolution had been passed at the Salt Lake meeting, authorizing distribution of pins to Past Presidents. These citations had been made and sent to those eligible. Minnich moved acceptance of report; seconded by Hirst; carried.

Report from the Executive Secretary.

1—The Secretary has received a letter signed by ten members of the Association, requesting that Dr. Stearns be made an honorary member of the A.M.C.A. Raley so moved, seconded by Hess; carried.

2—In receipt of a request from the Smithsonian Institute to be put on the mailing list and receive free, all copies of *Mosquito News* from the 14th volume on. Raley so moved, seconded by Hirst; carried.

3—It was moved by Minnich, that where the citations of Past Presidents had been lost or destroyed, they could request duplicates at cost. Said duplicates would be signed by the President signing their original, or in the case where the original signee was no longer a member of the Association, the duplicate citation would be signed by the President holding office at the time; seconded by Schoenfeld; carried.

4—The issuing of copies of *Mosquito News* to agencies, libraries, institutions, etc. was left to the Secretary's discretion.

5—Raley noted that several back issues of *Mosquito News* were no longer available. He requested that anyone having copies of any issues that they no longer need, please turn them in to the Secretary.

6—Raley requested exploration of the

possibility of getting extra copies of the proceedings of the Virginia Beach Meetings. Dorer was instructed to follow up.

7—Hirst moved that the Secretary affiliate the Association with various state and regional associations to obtain copies of their proceedings, seconded by Peters; carried.

8—The Secretary suggested that the Association prepare a manual of guidance for meetings and affairs of the Association. No action.

9—The Secretary reported that invitations for coming annual meetings have been received from Hawaii, Louisiana, Nebraska, Illinois, Utah and Texas. Schoenfeld presented a formal invitation for the Association to hold its 1959 Annual Meeting with the Utah Association in Salt Lake City, Utah.

#### New Business.

Bickley called attention to considerable inflammatory publicity the past few months relative to the use of insecticides and their harmful effect on fish and wildlife. He requested that the Association counter this publicity by releasing information and letters to agencies, universities and groups concerned with this problem. Hirst moved that the request be referred to the Resolutions Committee, seconded by Smith; carried.

Meeting adjourned at 5:30 p.m.

The report of the Nominating Committee was made to the membership during the first general session of the meeting, Monday a.m., February 24, 1958. Chairman Stutz (Attachment #2).

AMCA BUSINESS MEETING—4:45 P.M.,  
WEDNESDAY, FEBRUARY 26, 1958

President Lindquist opened the general business meeting by calling for consideration of the minutes of the Association for 1957 as presented in the June 1957 issue of *Mosquito News*. Chris Williamson moved acceptance of the minutes, seconded by Washburn; carried.

The Association Treasurer's Report was received from Lester Smith (Attachment #3). Don Collins, Editor *Mosquito News* added to the report that income and expenses from the publication and mailing of *Mosquito News* were in balance. He pointed out that recent issues tended to emphasize articles of a technical nature; that he would like to receive more articles on operational activities. The Editor will be glad to aid authors in the preparation and editing of papers, if desired.

Bickley reported for the Local Arrangements Committee. Registration at these meetings was approximately 350, with 276 attending the banquet. Gross income from exhibits amounted to approximately \$1,600.00 and from registration approximately \$1,500.00. He estimated there would be a net revenue of approximately \$1,500.00 which would be credited to the Association in support of the publication of *Mosquito News*.

Cradon reported for the Advertising Committee. Reviewed report submitted at the Board Meeting (Attachment #8). Requested help in soliciting advertising for *Mosquito News*.

Hirst reported for Twinn on the activities of the Committee on Publication of *Mosquito News*. Reviewed report as submitted at Board sessions (Attachment #5).

Ernestine Thurman reported on activities of the Good Neighbor Club Committee. Reviewed report submitted at Board meeting (Attachment #9).

Hirst reported on activities of Miscellaneous Publications Committee. Reviewed report as submitted at Board Meeting. See discussion in earlier Board meeting.

Graham reported on activities of Committee on the Sale of Miscellaneous Publications. Reviewed report as submitted earlier at Board Meeting (Attachment #10).

No report from Committee on Membership. Submitted earlier to Board, (Attachment #11).

No report from Finance Committee.

Submitted earlier at Board Meeting. (Attachment #13).

Report on Public Relations Committee by Dorer. Reviewed report as previously submitted to Board (Attachment #12).

No report from History Committee.

Report from the Bylaws Committee by Chairman Pepper (Attachment #16).

Pepper moved that the Board consider the committee recommendations, seconded by Hess; carried.

Report from Legislative Committee, Chairman Mulrennan. No requests for legislative considerations this past year; nothing undertaken by Committee.

Report from National Advisor Vannotte. Reviewed report as submitted at earlier Board Meeting (Attachment #7). Suggested that Board consider recommendations in the report.

Report from Executive Secretary, T. G. Raley.

1. Financial condition of the Association is good; during 1957 fund balance increased approximately \$800.00.

2. The Historical Committee Report has been completed. It remains to be determined when and how it will be published, perhaps with the aid of the Ford Foundation.

3. Requested that any extra copies of *Mosquito News* be sent to the office of the Executive Secretary or reported to that office. Some issues are exhausted or in short supply, which occasionally results in loss of sale of complete volumes.

4. Occasional Board action during the year by mail: Appointment of Schoenfeld to replace Rees on Board; approval of Seminar with Fish and Wildlife Service and other interested agencies.

5. Presidential actions required during the year were appointment of Dorer as Chairman of Public Relations Committee to replace Buchanan—resigned.

6. Noted that Budget allowances for officers for 1958 were approved by the Board as follows: Executive Secretary, \$200.00; Treasurer, \$100.00; Advertising Manager, \$100.00; Editor, *Mosquito News*, \$100.00.

Executive Secretary Raley moved acceptance of his report, seconded by Washburn; carried.

Hirst reviewed Membership report (Attachment #11). Also called attention to and commended Advertising Committee, Creadon, Chairman, on the excellent returns from advertising in *Mosquito News*, which represented a considerable increase from 1956 to 1957.

Raley called attention to increased interest in and growth of mosquito control activity throughout the nation. Noted that control activity was getting underway in Minnesota; a new State Association had just been formed in Louisiana and considerable interest was developing in the State of Washington.

Don Pletsch raised the question as to why additional financial aid might be needed through the Ford Foundation in view of the good financial condition of the Association. Both Raley and Vannote called attention to the fact that since the officers carried on the affairs of the Association on their own time and at their own expense; when financially able, the Association should bear at least a part of these expenses. Also, that the size and scope of *Mosquito News* could be enlarged and additional projects developed within the Association.

Report of the Resolutions Committee, Chairman Peters (Attachment #18).

Resolution #1. This resolution included seven separate but related sections, voted upon as a unit (See Resolutions in Attachments).

Peters moved adoption of the Resolution, seconded by Grant; carried.

Resolution #2 (See Attachments).

Peters moved adoption of this Resolution, seconded by Washburn; carried.

The Executive Secretary reported that a number of invitations had been received for the next two or three Annual Meetings. Additional invitations for the next Annual Meeting were invited. All will be referred to the Board of Directors for consideration and action.

Report from the Nominating Committee, Chairman Stutz (Attachment #2).

Mulrennan moved that the nominations be closed and that the Secretary be instructed to cast a unanimous vote in favor of the slate of officers submitted by the Nominating Committee, seconded by Rogers; carried.

The newly elected Officers of the Association were escorted to the speakers' table: President Hirst by Past President Lindquist; President-Elect Hess by Past President Peters, and Vice-president Jobbins by Past President Dorer.

The new President, Hirst, stated he was honored to accept the office and would strive to fulfill his new duties to the best of his ability. He called for the aid and services of all, and pointed out that three members had already offered to help. He declared the meeting adjourned at 6 p.m.

MINUTES OF THE BUSINESS MEETING OF THE BOARD OF DIRECTORS, AMERICAN MOSQUITO CONTROL ASSOCIATION, 6:05 P.M., FEBRUARY 26, 1958. WASHINGTON, D. C.

Present: John Hirst, A. W. Lindquist, Fred Stutz, Richard Peters, Rowland Dorer, Ted Raley, Archie Hess, Manley Jobbins, Arthur Geib, Don Collins, Bruce Brockway, Francis Creadon, John Mulrennan, Bob Vannote, Lester Smith, W. E. Bickley, Don Grant, Ed Washburn, B. Hocking, Don Micks, Jay Graham, and T. A. Schoenfeld.

The meeting was called to order by President Hirst.

The first matter of business concerned the appointment of a successor for Manley Jobbins to the Board of Directors representing the North Atlantic Region. Bickley moved that Vernon Conant be appointed to the Board of Directors representing the North Atlantic Region to fill the unexpired term of Manley Jobbins, newly elected Vice-president, seconded by Stutz; carried.

The Nominating Committee for 1958 was submitted by Lindquist for review

and consideration. Stutz moved acceptance of the Committee as submitted, seconded by Raley; carried, (Attachment #17).

Grant moved that the Association purchase, and reimburse Hirst for, all the label pins presented at these meetings by Hirst and adopted as official insignia for the Association. Seconded by Hess; carried.

Hess moved that the Board of Directors approve the recommendations of the By-laws Committee and poll the membership by mail concerning these recommendations. (Attachment #16) That the By-laws Committee be instructed to prepare the information and send to the membership for vote, seconded by Micks; carried.

Bickley moved that Vannote be reappointed National Advisor, seconded by Hess; carried.

The President was instructed to name the membership of the various committees of the Association and send his recommendations to the Board for consideration and approval by mail.

Raley moved that the papers presented at this, the 14th Annual Meeting of the American Mosquito Control Association be published in *Mosquito News* in accord with established policies and practices, seconded by Jobbins; carried.

Smith moved that Mr. Thom be made assistant to the Treasurer for 1958, seconded by Jobbins; carried.

Mr. Schoenfeld invited the Association to hold its next Annual Meeting in Salt Lake City, Utah. Hess moved that we accept the invitation and hold the next Annual Meeting of the A.M.C.A. in Salt Lake City in the spring of 1959, with the actual dates to be determined later, seconded by Graham; carried.

Raley moved that the President be instructed to write a letter of commendation to Dr. James E. Allen, Commissioner of Education, New York State Education Building, Albany, New York, for the outstanding work being done by Don Collins and Mrs. Slater in the editing and pub-

lishing of *Mosquito News*, seconded by Bickley; carried.

Meeting adjourned at 6:50 p.m.

## ATTACHMENT #1

### PRESIDENT'S REPORT FOR 1957

BY A. W. LINDQUIST

In this annual report I shall summarize some of the progress during the last year and give my impressions as to the strength and efficiency of our organization.

By and large the AMCA has had a good year. Progress has been steady—perhaps not as rapid as one would desire, but the Association has certainly been moving forward. There have been no spectacular or new problems and no reverses that have come to my attention.

Growth of prestige of the Association and interest in mosquito control by the membership and the public have continued unabated. The increase in new members has been good and we welcome them and hope they benefit by being with us. Advertising in *Mosquito News* has expanded greatly, and we are happy for this since our finances are thereby bolstered.

I have been amazed at the huge amount of correspondence necessary to carry out the business of the Association. There seems to be excellent communication between the offices of the President, the President-elect, the Executive Secretary, and the National Advisor, as well as others. In common with other presidents I have written numerous letters to the various Directors.

*Mosquito News* has an ever-widening circle of friends and admirers. The usefulness and acceptance of this periodical is increasing much more than we can know and measure. Because of its quality and appeal to mosquito workers, it enjoys a world-wide circulation and is found in over 120 libraries to be read by hundreds of students, researchers, and leaders of various scientific disciplines. It is gratifying to meditate on the impact this periodical and our Association have on mosquito work throughout the world.

Research on mosquito control has progressed steadily, but there have been no dramatic and far-reaching new developments. The methods and materials have been improved but, on the whole, we are approaching mosquito control in the same manner as in other years. Even though major break-throughs have not occurred, I believe that the improvement of existing techniques is highly important and can be classed as progress. Resistance of mosquitoes as well as other insects to insecticides is an increasing problem. Fortunately, research has kept pace in developing substitute materials. The new insecticides may not be as effective as the old ones but they are a big help in control. Research on the basic cause and nature of resistance and the seeking of counter measures is continuing on a world-wide basis. It is hoped that these efforts will bear fruit in alleviating the resistance problem.

Research here and there suggests some new ideas and concepts regarding control of mosquitoes. There seems to be some progress regarding the possible use of mitotic poisons and insect hormones for insect control. Investigators are exploring other new ideas and it is my feeling that these may bear fruit for future control use.

Certain important trends appeared during the year which will likely have a great impact on the future of all sciences, including biology and entomology. For the first time in several decades a national awareness of the need for basic research has arisen. Leaders in government, the press, and scientific groups have become concerned about the urgent need for additional basic knowledge. This is good news, because in many areas of science applied research cannot progress further without such knowledge. Most of the emphasis will be in the physical sciences having responsibilities in the development of missiles and satellites, but it is hoped some of the efforts will spread into the biological sciences. We need much more research on the biological, physiological,

and behavior characteristics of the mosquitoes that cause us trouble.

You probably know that the Agricultural Research Service of the U. S. Department of Agriculture has decided to encourage and stress basic research in plant and animal studies. To implement this, pioneering research laboratories have been set up in different areas of work of the Department. The Entomology Research Division has founded two such laboratories, one on insect physiology and the other on insect pathogens. Both laboratories are located at Beltsville. The physiology group is headed by Dr. W. E. Robbins, formerly a member of our Corvallis, Oregon, laboratory. He will be assisted by six physiologists to work on broad problems relating to toxicology, physiology, resistance, nutrition, and physiological reactions of insects to chemicals. The insect pathogens laboratory, headed by Dr. C. G. Thompson, will concentrate on the possible use of diseases to combat noxious insects. It is expected that these two laboratories will make contributions that can be applied to control of many insects, including mosquitoes. Several states are conducting research of a basic nature and the U. S. Public Health Service has plans for strengthening work on insect resistance, especially in disease vector species.

I believe we can expect a greater need for mosquito control. For example, the population in the United States is growing at the rate of over 4 million people annually, and it is estimated that by 1965 we will have nearly 200 million persons. In my opinion there will be just that many more people to be affected by mosquitoes and related arthropods and it will require expanded control activity and more personnel. Migration of the expanding population from towns and cities to the countryside will certainly have an important effect on mosquito control. This movement of populations away from cities increases the size of the areas that need protection against mosquitoes. Adjustments in the



size of mosquito-control districts and in approaches to their control must certainly be made in many areas.

The use of water to irrigate crops is increasing by leaps and bounds in the West, and also in the humid to semihumid East. Whenever crops are irrigated mosquito problems are created. Research by entomologists, irrigation engineers, and agronomists is needed to develop efficient water management methods which will minimize these problems. There seems to be a growing interest in the relationship of irrigation and mosquito production.

In the last few presidential reports to the Board I have noticed certain suggestions for improvements in A.M.C.A. affairs. There is no question that we can improve both as individuals and as an organization but this usually requires work. The only place where success precedes work is in the dictionary. There are several areas where we should strive to become more proficient. The following suggestions are not new but seem worthy of consideration:

1. Encourage regional directors to greater influence, service, and coordination in their respective districts through closer contact with members, problems, and current events, and promoting superior mosquito control and research in old but especially in new or forming districts. The directors should also have closer liaison and more frequent communication with the A.M.C.A. officers.

2. Arrange for more A.M.C.A. and mosquito-control exhibits at regional, state, and national entomological and other meetings. The fine exhibit by A.M.C.A. members at the Entomological Society of America meeting at Memphis in December attracted wide attention and did much to acquaint people with the objectives and achievements of our organization. Let's have more of these good exhibits.

3. Urge that more articles or news notes appear in *Mosquito News* on operational techniques, advantages and disadvantages of certain types of equipment and evalua-

tion of our practical control efforts. It seems highly important to broaden the base of information given in our journal. I have heard members express a desire for more information on effectiveness of certain types of sprayers, ditching equipment and other equipment, and everyday control procedures. Short items rather than full-length papers might be more desirable in most cases.

I want to express sincere gratitude and thanks to the officers of this Association, the chairmen and membership of the various committees, and the general membership for loyalty, support, and earnest and hard work during the year. It has been amazing to me to see the dozens and even hundreds of real hard workers and promoters for the cause of good mosquito control. It is impossible to name the numerous people who are daily contributing to the welfare and strength of the organization. However, I cannot refrain from pointing out the excellent management job that your Executive Secretary, Ted Raley, is performing. He puts in an enormous amount of work on the affairs of the Association. The work of Don Collins, as Editor of *Mosquito News*, is outstanding; and his untiring efforts have made *Mosquito News* the respected Journal it is today. Lester Smith's activities in handling the job of Treasurer are also outstanding, and I am sure every one recognizes his efficient processing of records and funds has had much to do with the success of our organization. Your President-elect, Cdr. John M. Hirst, and Vice-President, Dr. Archie Hess, have a deep interest in mosquito control and certainly have been working hard for the welfare of our Association. Dr. W. E. Bickley has done a tremendous job in organizing and leading the group responsible for this excellent meeting in the Nation's Capital. We owe a debt of gratitude for his efforts.

A. W. LINDQUIST, *President*

## ATTACHMENT #3

AMERICAN MOSQUITO CONTROL ASSOCIATION, METUCHEN, NEW JERSEY  
SUMMARY OF CASH RECEIPTS AND DISBURSEMENTS

Treasurer's Account, Year Ended December 31, 1957  
Audited by Nathan Lipman, C.P.A.

RECEIPTS	General Account	Special Publications
Balance on deposit—January 1, 1957	\$ 5,228.59	\$ 927.30
Dues and subscriptions	\$5,428.17	
Advertising	3,093.05	
Back issues	44.50	
Reprints	842.23	
Good Neighbor Club	515.00	
Bulletins	55.00	
C. T. Williamson—transfer of funds		\$1,000.00
Contribution—Florida Association	1,495.00	
Unidentified deposits	7.33	
Other receipts	1.44	1,000.00
	\$16,710.31	\$1,927.30
DISBURSEMENTS		
Printing of <i>Mosquito News</i> , reprints and mailing charges	\$8,840.15	
Office supplies, expenses, etc.	346.33	
Postage	276.86	
Fidelity bonds	23.75	
Traveling expenses	500.00	
Convention expense—1958 (Dr. Bickley)	150.00	
Examination of Treasurer's records	70.00	
Refund to subscribers	10.00	
Bank charges	1.61	
Checks returned (redeposits included in receipts)	143.85	0
BALANCE—December 31, 1957 (on deposit—Commonwealth Bank of Metuchen, Metuchen, New Jersey)	\$ 6,347.76	\$1,927.30

## ATTACHMENT #4

REPORT OF EDITOR OF *Mosquito News* ON VOLUME 17 (1957)

Presented below are the statistics on the printing of *Mosquito News*, Volume 17. In addition, the Editor would like to make a few remarks. He is writing this report just as the final contributions from the Associate Editors are being assembled for the March, 1958 number, which will be Volume 18, No. 1. This prompts him to take this opportunity to thank them on his own behalf, and on behalf of the Association for their unselfish and untiring efforts during the year just past and all the other years past.

The letters of commendation and complimentary remarks received by the Editor are really meant for the Associate Editors, each working diligently and intelligently, often without any recognition, and always without the recognition they deserve.

Helen Sollers, now in a research branch not specializing in mosquitoes, has nevertheless continued, singlehandedly, to make the Bibliography Section one of the outstanding features of its kind in any scientific periodical. Several subscribers have stated that that is the department they turn to first, and that it alone is worth many times the subscription cost in time saved in literature search. This is a difficult section to compile, difficult to type, difficult to set up in type, and difficult to proof-read. Our printers as well as Miss Sollers deserve credit for an outstanding achievement in this department.

Helen Louise Durkee, likewise now no longer in mosquito work as a profession, has made her department also one of the most valued in our journal. She seems to have a very special knack for obtaining reviews from the busiest people, who of course, are at the same time authorities in their fields and therefore the

best possible persons to give authoritative resumés and critical reviews. And when these fail she does them herself. We cannot think of anyone who has shown more devotion to A.M.C.A. and *Mosquito News*.

Austin Morrill obviously enjoys compiling his department almost as much as his readers enjoy reading it, and the editorial office always awaits his contributions with the greatest interest. *Mosquito News* has always tried to reach every type of reader, from the wielder of the spray boom and the operator of the dredge, to the wielder of the micro-pipette and the manipulator of the scalpel. Austin, as Horace said of Death, knocks indiscriminately on the doors of all, (pardon the allusion, Austin) and we never know what or whom he will find to present, or where or when or how he finds it all out.

Dr. Travis and Dr. McDuffie, and the authorities whom they consult, constitute an ever present, ever helpful, always willing, indispensable source of advice for the Editor. By the very nature of things in a journal such as ours, the editor has to take and should take the final responsibility for what appears in print in the *News*. However, he would like to state here, that if what appears is good, it is to the credit of the contributors and the Associate Editors; if it is bad he must take the greatest share of the blame himself.

The Editor therefore takes the opportunity, in presenting his annual report, to accept in the name of the Staff of *Mosquito News* and the contributors, such compliments as have come to us, and at the same time to accept for himself the occasional criticisms and suggestions for betterment, with the promise to give them his most sincere consideration and attention.

Issue	No. Printed		No. Pages		Cost	
	Vol. 16	Vol. 17	Vol. 16	Vol. 17	Vol. 16	Vol. 17
March	1450	1450	68*	84*	\$1720.96	\$1917.26
June	1450	1450	152	88	3006.05	1846.69
September	1450	1450	80	116	1630.99	2331.26
December	1450	1500	92	120	2035.36 <sup>1</sup>	2454.44
Total	5800	5850	392	408	\$8393.36	\$8549.65

\* Includes Index.

Less payments for extra pages, extra tables, illustrations, etc.	\$157.25	
Payment made by authors for corrections in proof which exceeded allowable number	5.00	162.25
		<u>\$8387.40</u>

	No. Pages	
	Vol. 16	Vol. 17
Proceedings Papers	115	131
Articles	107	115
Operational and Scientific Notes	11	4
Editorial	1	3
Association News	22	24
News and Notes	20	15
Reviews and Abstracts	11	6
Bibliography	33	31
Advertising	71	75
Miscellaneous	1	4
	<u>392</u>	<u>408</u>

D. L. COLLINS, Editor

## ATTACHMENT # 2

### REPORT OF NOMINATING COMMITTEE AMERICAN MOSQUITO CONTROL ASSOCIATION

The members of the Nominating Committee, duly appointed by the President and approved by the Board of Directors, nominate for the coming year the following slate of officers:

For President, Comm. John M. Hirst

For President-Elect, A. D. Hess

For Vice President, Dan Jobbins

For Recording Secretary,

Arthur F. Geib

For Regional Directors:

South Atlantic Region, J. A. Mulrennan

Northwest Central Region, J. E. Graham

Southwest Central Region,

Don Micks

North Pacific Region, LaVerne Miller

Mexico, Central and South America,

Luis Vargas

The above nominees have agreed to serve, if elected.

Respectfully submitted,

ALLEN S. WEST

ROBERT L. ARMSTRONG

P. B. BROCKWAY, JR.

R. W. BUNN

JAY E. GRAHAM

C. A. VIESER

JOHN H. HUBER

E. CHESTER ROBINSON

LUIS VARGAS

FRED H. STUTZ, *Chairman*

## ATTACHMENT #5

REPORT OF THE STANDING COMMITTEE  
ON PUBLICATION OF *Mosquito News*

*Mosquito News*, in addition to serving as the official organ of the Association, has established an international reputation as a vehicle for authoritative scientific papers relating to mosquitoes and their control, and as a medium for exchanging information of practical interest among control workers. The Editor, Dr. Don Collins, and other members of the editorial staff, have in large measure been responsible for this good reputation. They give their services to the American Mosquito Control Association without compensation and perform this work in addition to their regular professional duties. Your committee have given thought to possible ways of making their task easier.

In the past it has apparently been assumed that any papers that are presented at the annual meetings of the Association would automatically be published as part of the Proceedings. Your committee has considered this situation and recommends that all papers for publication in *Mosquito News*, whether part of the Proceedings or not, must conform to the literary and scientific standards of the journal. The acceptance of papers should be left to the discretion of the Editor and his editorial associates and advisors, and consideration might be given to the establishment of an Editorial Board or Review Committee, to assist in screening papers delivered at the annual meetings, and to deal with other papers that the Editor thinks should be critically examined by appropriate authorities.

This would assist the Editor in weeding out papers of doubtful value or questionable content. The Proceedings could be made complete in such cases by substituting short summaries for the papers in question. By such means the good name of *Mosquito News* would be maintained and economies affected in publication.

Attached to this report is the draft of a statement entitled: "Publication Policies

and Manuscript Rules for *Mosquito News*" prepared to assist in reducing the load of work of the Editor and his associates and to help offset increasing costs of publication. This embodies the rules and regulations concerning manuscripts, printed on the inside back cover of *Mosquito News*, and also includes helpful material from the publication requirements of the *Journal of Economic Entomology* and other scientific journals.

The increasing number of papers received by the Editor requires that authors exercise more care in following the forms desired by the journal, and the increasing cost of publication requires that they prepare their manuscripts as concisely as possible. Accordingly, it is recommended that this or a similar statement, if approved, be published in *Mosquito News* to guide and assist authors in attaining these objectives.

W. E. BICKLEY  
P. BRUCE BROCKWAY  
KENNETH L. KNIGHT  
C. R. Twinn, *Chairman*

## MOSQUITO NEWS

(Official Organ of the American Mosquito  
Control Association)

*Publication Policies and Manuscript Rules*

The primary criteria for approval of an article for publication in *Mosquito News* are the [scientific] merit of its content and the clarity and conciseness of its presentation. No manuscript that has been published elsewhere, either wholly or in essential part, will be accepted. Also, it is understood that articles submitted will not be offered for simultaneous publication in other journals without the consent of the Editor.

Preferably, manuscripts should be accompanied by the written approval of a person or persons familiar with the subject. The Editor may submit the manuscript to one or more reviewers. Subsequently the author may be given an opportunity to revise his paper in accord-

ance with the reviewers' comments. If revisions are made all pages of the original manuscript, as well as any retyped ones, must be returned to the Editor. This procedure is followed solely for the purpose of improving the quality of articles and to reduce publication costs. Papers are unacceptable if conclusions are obviously unsound or based on faulty experimental methods or inadequate data. Acceptable papers must be in accord with the rules and suggestions printed in *Mosquito News*. When a paper is unacceptable the Editor will return it to the author with an explanation for not accepting it.

In general, preference in publication is given to authors who are members of the Association and subscribers to *Mosquito News*. If an article exceeds six printed pages, the author may be asked to pay for the additional pages at cost. Articles are ordinarily published in the order received, except for material given priority by the Board of Directors or the Editor's discretion. Date of receipt is that date on which copy is accepted in final form for publication. Immediate publication of acceptable manuscript out of turn may be secured by payment of the cost of printing and engraving (\$11.00 to \$13.00 a page, or more, depending on make-up and current costs).

*Preparation of Manuscripts.* For the ribbon copy, use paper of medium weight and good quality; flimsy paper is not satisfactory. Preferably use paper 8½ by 11 inches. Type on only one side of the paper and leave ample margins. *The ribbon copy is required for the printer. Double space all typed material, including text, footnotes, tables, captions, references, etc.* Number consecutively all pages in the manuscript, including those for tables and captions for illustrations. Use paper clips, *not staples or pins*, to fasten manuscripts. Mail the manuscript flat, not folded or rolled.

In the title indicate the subject of the paper clearly but concisely. Give the official address and indicate the professional status of the author or authors in a footnote on the first page. Keep text footnotes

to a minimum and number them consecutively throughout the paper. Center heads should be avoided if possible; if used they should be brief and clear. Use side-heads for subheads.

*Tables.* Tables are expensive. Reduce them to the simplest form and do not use them if text or illustrations give the same information. The author may be charged for extra composition for tables. Give each table a clear concise heading stating its contents. Use a double horizontal line immediately below the title of the table and a single horizontal line below the column headings and at the bottom of the table. Use no other horizontal lines and no vertical lines. Reduce the number of columns to a minimum. Type each table on a separate sheet and place it at the end of the manuscript. Show where the table is desired in the text by writing: "Table 1 near here" encircled with a line.

*Illustrations.* Illustrations are expensive and are accepted at the discretion of the Editor and only when they contribute substantially to the information presented in the paper. They are required to contain material that is not given in tables or that is not more readily given in tables or summarized in the text. They should be clear and obviously suitable for reproduction. Authors may be charged for engravings if more than 3 are required, or if their use results in excess pages. Make the lines and letters and figures on drawings heavy enough to stand the required reduction. *Labels and key letters should not project into the margins in such a way that they cause greater reduction than would otherwise be necessary.* Drawings should be on pure white or light blue cross-hatched paper. Original drawings are preferred. It is advantageous also to include a photographic copy for transmittal to reviewers. Place on the back of each illustration the name of the author, the title of the paper, and the figure number as used in the text. Note that cracks and marks made by paper clips or pressure of writing ruin photographs for reproduction. Type the captions for illustrations by themselves at the

end of the manuscript, in paragraph form. Show where the figure is desired in the text by writing: "Fig. 1 near here" encircled with a line.

*References Cited.* Citations should be given in the text and the references placed in a list typed double spaced on a separate sheet of paper at the end of the text. Arrange them alphabetically by author's last name followed by the author's initials, year, title, name of publication, volume, and pages, in the order named. Abbreviations used in references should conform to those published in *Biological Abstracts* (Vol. 29(5):V-XXV, May, 1955, and any subsequent revisions of this list).

*Proof.* Galley proofs will be sent to authors or their representatives to read and correct before publication unless the Editor is otherwise instructed by the author. Alterations should be limited to the correction of typographic and factual errors. Authors may be charged for correction of errors in galley proofs for which the authors are responsible. The corrected proof must be returned promptly to the Editor or the article will not be printed in the current issue or may be printed without benefit of author's corrections.

*Summary.* A summary is desired for all but very short papers.

*Abstract.* When returning corrected galley proof contributors are asked to send an abstract of the article for transmittal to *Biological Abstracts*. This should be kept within 250 words and should not exceed 3 percent of the original length.

*Reprints.* No free reprints are supplied. The author or the agency by which he is employed should order them when returning the galley proof. The schedule of prices for reprints will be found on the inside back cover of *Mosquito News*.

## ATTACHMENT #6

### REPORT OF THE FINANCE COMMITTEE

The annual budget prepared by the Treasurer has been examined and the committee recommends its adoption.

One of the basic functions of this committee is to give thought to the development of methods for increasing revenue to the Association. In the interest of brevity the committee directs the attention of this body to just a few of these resources which are especially close to home. First, there is the development of an "improved supplier interest."

A fair share of convention expenses is borne by fees charged exhibitors and demonstrators of equipment and materials, who are undoubtedly very hopeful at each of these meetings that the importance of their products will impress a goodly number of the delegates present. Aside from the good fellowship arising from personal contact at these affairs, their presence or showing may conceivably be less attractive to them unless some added inducement is forthcoming. Judging from the reactions this committee has had from a number of district trustees and technical directors, many of the representatives from the field or practical side of our business leave the national meeting with a feeling of disappointment because of the limited amount of time and attention the programs have devoted to this important part of our interests.

Following is a summary of the committee's opinions on these subjects:

The scope of the annual meetings should be broadened to include more opportunity for the advertisers and exhibitors to get their message across. This would benefit both suppliers and users, and might bring in more revenue both by maintaining and increasing the interest of the suppliers in advertising and exhibiting, and by encouraging greater attendance at meetings.

There should be more encouragement of program participation by those interested primarily in field work and practical application, to balance the presentation of more technical papers. The committee believes the achievement of such a balance might also stimulate attendance.

Approval was expressed of Don Johnson's work as chairman of the Member-

ship Committee, and the Finance Committee suggests that the Membership Committee should be entitled to support not only from individuals as such but also from all potential members, such as District board trustees, health officers, universities, manufacturers of field equipment, producers of larvicides, etc.

Although the Association is in sound financial condition, there is no financial leeway for any type of expansion or unusual expense, however justifiable, such as help for the secretary and treasurer in assisting the Membership Committee, or help in financing the national meeting, which under present conditions depends on an organized local group to promote and hold a meeting.

Therefore, the Finance Committee, in order to improve the Association's financial condition, suggests that Board consideration be given to the thoughts advanced above and to the following specific suggestions:

1. *Increase New Membership Fees and Annual Dues.* Our cost of operation, small as it is, has been affected by inflation. Considering the value of what we have to offer to each member of our profession and to the world at large, it is indeed a small fee that we charge. The committee believes that there should be a nominal increase in both of these fees.

2. *News Advertising Campaign.* Many of our members are using products of suppliers who do not advertise in *Mosquito News*. If these products fulfill the needs of these members it should not be too difficult to convince the supplier of the potentials of a broader application through an ad in *Mosquito News*.

3. *Program Advertising.* This has been a source of revenue in similar enterprises and we urge that the Annual Conference committees consider the possibilities.

4. *Grants-in-Aid.* This is a field that has been explored to a certain extent and eventually may prove profitable. There are some instances where outright grants for specific projects could be helpful and we understand that Bob Vannote is giving this matter his personal attention. The

Finance Committee urges that advantage be taken of whatever resources become available, without, however, obligating ourselves beyond what is proper for the Association to accept.

5. *District Budget Assessment.* The raising of funds by assessment has been proposed. Local districts could consider this at the time their budgets are being prepared as money to be used for educational and informative purposes. The amount to be assessed would of course depend on the sums required by the A.M.C.A., but under any circumstance would be only a small fraction of the district total budget. Local legal limitations may have to be reviewed.

Your Committee on Finance make the above presentation in the hope that this board will seriously consider the appointment of a special studies group that will have the power to review these and kindred suggestions and make any formal proposals that will lead to accomplishing what has been suggested.

Respectfully submitted,

P. BRUCE BROCKWAY, JR.

G. W. EDDY

ROBERT L. ARMSTRONG

DAN F. BOYD

F. RAY BARRON, JR.

LESTER W. SMITH

CHARLES F. SCHEEL, *Chairman*

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## ATTACHMENT #7

### REPORT

To: Directors, American Mosquito Control Association

Subject: Assistance from the Ford Foundation

Date: February 20, 1958

Acting with the approval of the Board of Directors, several conferences have been held with officials of the Ford Foundation relative to financial assistance to the American Mosquito Control Association. The conclusions of the conferences are as follows:

1. At the present time the scope of the



Foundation's activities do not include programs in the fields of natural science or engineering; however, an organization is now being set up for such projects.

2. Our general interest has been recorded to support such a program.

3. Submission of an application for assistance prior to October 1, 1958 could not be processed; consequently, would be rejected as the organization for projects in this field will not be operative until that time. No applications are held for future approval.

4. General facts relative to assistance:

a. Funds are appropriated to approved projects to accomplish a specific objective or to finance a program until it can become self-supporting.

b. Grants may be made for one or more years; however, ten is about the limit.

5. General facts relative to applications:

a. The proposal should contain the following:

1. A brief description of the sponsoring agency, its objectives, organization status and its authority to accept and administer grants.

2. The objective of the proposal.

3. Methods by which it is to be accomplished.

4. The period of time it is expected to take.

5. The funds required and an estimated budget in some detail.

6. The qualifications of the organizations or individuals involved, and the organizations' ability for tax-exemption privileges.

7. Whether similar projects have been undertaken previously.

8. Whether support has been, or is being, requested of other foundations. (The Ford Foundation is more willing to assist if funds are available from no other source.)

b. A representative of the sponsor

should be available to meet with the Foundation's Board of Directors to discuss the program and answer questions.

#### 6. Recommendations

a. That the Board fix its objectives for financial assistance; in what area, how much and how long.

b. That the Board appoint a Committee authorized to pursue financial assistance in accordance with the general policies.

c. That the Committee develop a program in accordance with the policies of the Board and file applications with other sources of assistance.

d. That on October 1, 1958 an application be filed with the Ford Foundation.

e. That the officers of the Association be authorized to sign such applications and contracts, should approval be granted.

ROBERT L. VANNOTE,  
*National Adviser*

### ATTACHMENT #8

#### REPORT ON ADVERTISING IN *Mosquito News* JANUARY 1, 1957 THRU DECEMBER 31, 1957

The figures below represent transactions during the calendar year 1957, for advertising in four numbers, Volume 16 number 4 and Volume 17, numbers 1, 2 and 3. (December 1956 and March, June and September 1957.)

Number of Active Accounts	27
Number of Pages of Advertising (exclusive of AMCA business)	70
Receipts	\$3,141.15
Expenses:	
Postage, telephone, telegrams	\$ 58.40
Printing, rate sheets, envelopes	31.20
Honorarium for stenographer	10.00
Total Expenses	\$ 99.60

Respectfully submitted,  
FRANCIS P. CREADON,  
*Advertising Manager*

## ATTACHMENT #13

AMERICAN MOSQUITO CONTROL ASSOCIATION, INC., OFFICE OF THE TREASURER  
BUDGET ESTIMATE 1958

PRESIDENT:			
Postage and stationery,		\$ 50.00	\$ 50.00
SECRETARY:			
Postage,		125.00	
Printing, stationery and forms,		100.00	
Insurance bond,		5.00	
Telephone, telegrams,		10.00	
Other expense,		10.00	
Travel expense, Annual Meetings for all eligible members,		500.00	750.00
TREASURER:			
Postage,		125.00	
Printing, stationery and forms,		75.00	
Telephone, telegrams		10.00	
Annual audit of books,		100.00	310.00
EDITOR:			
Postage,		25.00	
Printing, stationery and forms,		25.00	
Telephone, telegrams,		25.00	
Printing <i>Mosquito News</i> , 4 issues, includes mailing costs,		8,425.00	8,500.00
ADVERTISING MANAGER:			
Postage,		50.00	
Printing, stationery and forms,		35.00	
Telephone, telegrams,		25.00	
Other expense,		10.00	120.00
LIBRARIAN:			
Postage,		50.00	
Stationery,		20.00	70.00
BUSINESS MANAGER:			
Postage,		50.00	
Stationery,		10.00	60.00
OTHER EXPENSE:			
Contingencies		340.00	
Educational Exhibit		200.00	540.00
TOTAL ESTIMATED BUDGET (1958)			\$10,400.00

## ESTIMATED REVENUE, 1958

	ACTUAL, 1957	ESTIMATED INCOME, 1958
Dues and subscriptions,	5,428.15	6,000.00
Advertising	3,093.05	2,800.00
Contributions from individuals and Associations	1,495.00	1,100.00
Good Neighbor Club	515.00	500.00
TOTAL REVENUE	\$10,531.20	\$10,400.00

Respectfully submitted,  
LESTER W. SMITH, *Treasurer*

ATTACHMENT #9

GOOD NEIGHBOR CLUB, AMERICAN MOSQUITO CONTROL ASSOCIATION,  
FEBRUARY 22, 1958

The annual campaign for 1958 Sponsors for the Good Neighbor Club, A.M.C.A., was launched in December, 1957. All 1957 Sponsors were contacted, soliciting continued support. All Good Neighbors were contacted inviting them to join A.M.C.A. or indicate their wishes for continued sponsorship. Letters of solicitation and blanks for adopting Good Neighbors were distributed in the December issue of *Mosquito News*. Dr. Lindquist made secretarial assistance available, equivalent to 3 man-days, for this initial drive. Dr. Collins handled the distribution through *Mosquito News*. These courtesies are acknowledged and appreciated.

Of the 113 Good Neighbors sponsored during 1957, two have elected to join A.M.C.A. and two have cancelled membership. Eight new Good Neighbors have been added. Two new countries have

been added. There are 117 Good Neighbors from 48 countries to be sponsored during 1958. Names of 64 candidates are on the list waiting for Sponsors. Among these candidates are representatives from eight countries currently not reached by the Good Neighbor Club.

Of the 61 Sponsors of 1957, 42 have renewed sponsorship. Five new Sponsors have been added, totalling 47 who are sponsoring 82 Good Neighbors.

Those Sponsors who have not renewed for 1958 have been contacted again. The financial status of the Good Neighbor Club cannot be known until after receiving responses from these and potential Sponsors.

Recommendations for 1959 are:

1. Further investigate the possibility of the State Department making funds available for sending subscriptions overseas, action initiated by A. D. Hess and D. R. Johnson.

2. Provide for sending back issues of *Mosquito News* to Good Neighbors who request them.

Status of Good Neighbor Membership

	Sponsors	1957 Good Neighbors	Sponsors	1958 Good Neighbors
Commercial	14	50	9 renewed 1 new	29 (3 new)
MAD & State Assoc.	16	24	12 renewed	18
Individuals	31	39	21 renewed 4 new	35 (5 new)
Totals	61	113	47	82

Financial Status

Operating Fund

Receipts:

Cash transfer from A. D. Hess, 7/12/57	\$125.00	
Van Hovenberg Fund	140.63	
From 1958 Sponsors	367.50	
Bank Deposits		\$633.13
Committed by Sponsors	25.00	

Expenditures:

Paid Directly to AMCA Treasurer		
Orange Co. MAD	10.00	
N. Salinas Co. MAD	5.00	
Letterheads & Envelopes (Pd. 10/10/57)		36.50
Bank Balance		\$596.73
Stamps (not paid)	26.14	
Typist (35 hrs. @ 75¢/hr. not paid)	26.25	

3. Allocate \$50.00 for clerical assistance for the Chairman of the G.N.C.

Respectfully submitted,

ROBERT L. VANNOTE

HELEN SOLLERS

ROWLAND E. DORER

GORDON E. SMITH

WILLIAM J. BUCHANAN

ALBERT W. BUZICKY

C. DONALD GRANT

LESLIE D. BEADLE

ARCHIE D. HESS

CARROLL N. SMITH

ERNESTINE B. THURMAN, *Chairman*

#### ATTACHMENT #10

##### REPORT OF THE SALES OF MISCELLANEOUS PUBLICATIONS COMMITTEE

During the past year the members of the Committee on Sales of Miscellaneous Publications have devoted considerable time and effort to promoting sales of the bulletins of the Association, particularly Bulletin No. 3. This task was undertaken without great expectations because the latest bulletin has been available since January 1955 and most of the interested people would presumably have obtained copies. The committee was gratified to learn from Mr. Williamson that an increase in sales had resulted from their efforts.

Advertisements have been inserted free of charge in several publications and postcards with information relative to the bulletins are being sent to colleges and universities throughout the country. Members of the committee are trying to promote sales by contacting groups and individuals in their areas and are having some success. Continuing efforts on the part of the committee and individual members of the association are needed to sell the remaining copies of the bulletins.

Respectfully submitted,

OSMOND P. BRELAND

BRIAN HOCKING

C. T. WILLIAMSON

FRANKLIN C. WRAY

JAY E. GRAHAM, *Chairman*

#### ATTACHMENT #11

##### REPORT OF MEMBERSHIP COMMITTEE—1957

During 1957 this committee revised the Application for Membership Form. An editorial entitled "A Young Adult and a Teenager," which urged all members to recruit new members, was included in Volume 17, Number 3, September 1957, *Mosquito News*. One copy of the new Membership Form, which is printed on blue stock, was included with each copy of this issue of *Mosquito News*.

A letter of invitation to membership (attached) was prepared and sent to 180 members of the Medical and Veterinary Section of the Entomological Society of America who are not members of the A.M.C.A. In addition, the A.M.C.A. Board of Directors, Regional Directors and other members distributed many membership forms to prospective members. A special A.M.C.A. exhibit was prepared and displayed at the 5th Annual Meeting of the Entomological Society of America in Memphis during December. Membership Forms were available at this exhibit which was assembled by George Hutton and other members.

The membership has increased during the past year, as evidenced by the mailing list. There were 1298 subscriptions of *Mosquito News* as of the December 1956 issue mailing, and 1384 subscriptions for the December 1957 mailing. This is a net increase of 86 subscriptions for 1957. With the continued support of our membership unprecedented growth of the Association will occur during 1958.

Respectfully submitted,

DONALD R. JOHNSON,

*Chairman, Membership Committee*

#### ATTACHMENT #12

##### STANDING COMMITTEE ON PUBLIC RELATIONS

The Committee was circularized and asked to vote on the acceptance of a design for an Association Seal and Pin. Also, they were requested to give their ideas on

other Committee projects. The returns were very complete and many suggestions were made. From these a tentative report of the Committee was made up and sent to each member for his comments. On a majority count the tentative report was approved in toto. However, some very pertinent comments were made concerning some of the items and they have been included in the final report for your consideration.

1. Your Committee feels that an increase of one dollar (\$1.00) in dues is necessary and makes such a recommendation. This was unanimous.

2. Based on the experience gained at the E.S.A. Meeting in Memphis where the A.M.C.A. had an exhibit, it is felt that the Association should construct a suitable exhibit which could be shown at meetings in various parts of the country. This exhibit should be portable so that it can be easily shipped or carried in an automobile and would have as its main purpose the promotion of the A.M.C.A. There was strong support for this project.

It is recommended that the A.M.C.A. appropriate \$200.00 for the construction of such an exhibit.

3. Your Committee feels that a set of suitable posters which could be sold to the various Mosquito Control organizations would have a ready market and it recommends that the Board of Governors make \$50.00 available to produce several sample posters. There was some doubt by one member whether this could be done effectively.

4. The idea of an International Advisor was suggested and inasmuch as Harry Stage is so well acquainted abroad his name was considered for the post. Several members expressed an opinion which was not against the idea, but they felt that there might be some confusion with the operation of the Good Neighbor Club and, also there might be some conflict with the duties of the National Advisor. Therefore, the Committee recommends that this matter be considered by the President and Board for proper action.

5. Your Committee has determined a need for a special publication in the form of a handbook for field operators and recommends that this matter be turned over to the Special Publication Committee with a recommendation that work toward this end be started.

Respectfully submitted,

E. J. BEIDLER  
W. J. BUCHANAN  
HARRY D. PRATT  
FRANCIS P. CREADON  
HARRY H. STAGE  
ERNESTINE THURMAN  
DON R. MICKS  
ROBERT HAMMON  
R. E. DORER, *Chairman*

#### ATTACHMENT #14

#### REPORT OF RESEARCH AND DEVELOPMENT COMMITTEE FOR 1957

The Research and Development Committee made a belated effort to assemble information on new research developments in mosquito control during 1957, with the idea of determining the present status of research and future research needs. With this information at hand it was felt that our committee might undertake to promote closer cooperation among the major research agencies and thereby hasten progress in the field of mosquito control. The response was so unenthusiastic that we failed to achieve our objective. However, we have summarized the highlights of research available to us and are reporting them by agencies:

#### *U.S.D.A., Orlando, Florida*

Research at the Orlando, Florida, laboratory is concerned primarily with the development of new insecticides for use in mosquito control. Approximately 1,000 new chemicals are screened annually and as a rule 10 or 12 are found that are worthy of field evaluation. At the present time some 25 or 30 promising materials discovered during the period of 1955-57 are in various stages of evaluation in the field.

In small plot tests against *Anopheles* larvae seven materials have given results comparable to DDT, namely, the 2,4-dimethylbenzyl and 6-bromopiperonyl esters of chrysanthemumic acid, Guthion, Thimet, *S-p*-chlorophenylthiomethyl-*o,o*-diethyl ester of phosphorodithioic acid and two Bayer compounds. In field tests against resistant salt marsh larvae granular formulations of 4 insecticides applied by airplane gave 97 to 100 percent control as follows: Bayer 21/199 at 0.1, malathion at 0.25, chlorthion at 0.5, and Dipterex at 0.75 per pound per acre. Oil solutions applied by air were less effective.

Research in the San Joaquin Valley, in cooperation with the California Bureau of Vector Control, showed that Dipterex at 0.5 p.p.m. and phosdrin at 1.0 p.p.m. controlled larvae for 1/2 mile from the point of introduction into irrigation water. The search for more effective water soluble materials is being continued.

Studies on the rate of release of different concentrations of several insecticides from various types of granular materials indicate that insecticides have a variable rate of release at different concentrations in the same as well as different diluents. This means that precise formulation of granular formulations is far more important than generally believed.

In field tests of aerial sprays against salt marsh adults, excellent control of heavy populations was obtained with parathion at 0.025 pound per acre and malathion and Diazinon at 0.05 pound per acre. One of the esters of chrysanthemumic acid gave 88 percent control at 0.1 pound. Bayer 21/199, Dicapthon (Am. Cyanamid 4124), and Dipterex at 0.1 and 0.25 pound per acre were inferior to the other named materials.

As residual treatments malathion and Diazinon appeared to be about as effective as DDT over a 3-month test period against *A. quadrimaculatus*. Dicapthon was only slightly less effective and chlorthion, Dipterex, and Dow ET-57 also showed promise. Future developments from this program will doubtless be of interest and

valued to malaria control organizations faced with the problem of DDT-resistant *Anopheles*.

"Mosquitoes of the Southeastern States" has been revised by Drs. King, Bradley, and Smith. This valuable publication should be available late this year.

#### U.S.D.A., Corvallis, Oregon

Research on mosquito control at Corvallis, Oregon, includes (1) the screening of new insecticides against *Culex tarsalis*, (2) the field testing of promising materials against *Culex tarsalis* and flood water *Aedes*, (3) biology and control of mosquitoes in log ponds, (4) the control of adult mosquitoes in irrigated areas, and (5) the studies of resistant mosquitoes.

During 1957 approximately a dozen promising insecticides against *tarsalis* were found, the best of which were: Bayer 21/199, Am. Cyanamid 12008, Am. Cyanamid 12009, Thimet, and Guthion.

In field tests against *Aedes nigromaculis* in irrigated areas of the San Joaquin Valley in cooperation with the California Bureau of Vector Control, several chrysanthemumic acid esters were effective at 0.4 pound per acre. Am. Cyanamid 12008 at 0.05 and Korlan (Dow ET-14) at 0.3 pound per acre, gave 97 and 100 percent control. Against *C. tarsalis* the 6-bromopiperonyl ester at 0.4 pound per acre gave 82 percent control, whereas the same dosage of the 6-chlorophenyl ester gave only 44 percent.

In log ponds heptachlor at 1, 3 and 6 pounds per acre prevented breeding for 5, 8, and more than 10 weeks, respectively. Applications of 1, 3 and 6 pounds per acre of DDT and malathion were effective for about 3, 5, and 6 weeks, respectively. The principal species in log ponds were *Culex pipiens*, *C. stigmatosoma* and *Culiseta incidens*.

An intensive study was made of the nature and characteristics of a number of log ponds which indicated that abundance of debris, water movement in and out of ponds, and water levels all had a bearing

on breeding. Since all of these are manageable factors it would appear possible to alter them to create unfavorable conditions for breeding.

In tests conducted in cooperation with the California Bureau of Vector Control community fogging with 5 percent malathion with 3 percent lethane or 0.08 percent pyrethrins failed to give satisfactory control of *Culex tarsalis* adults, but was highly effective against *Aedes* species. These results point up the need for more effective methods and/or insecticides for controlling adult *C. tarsalis*, an important vector of equine encephalitis.

#### Florida State Board of Health Laboratory

The program of research of the Entomology Research Laboratory at Vero Beach includes the evaluation of mists, aerosols, and dusts for the control of adult mosquitoes, the development of new methods and materials for larviciding, and the management of salt marshes for the control of *Aedes* mosquitoes. Studies in 1957 showed that fogs and mists of malathion were highly effective against all species in all locations tested whereas DDT gave unsatisfactory control of *A. taeniorhynchus* everywhere.

A new larvicide consisting of paris green applied to vermiculite with an oil emulsion sticker proved highly effective against several species of anopheline and culicine larvae in both fresh and salt water breeding areas. This formulation affords a means of controlling resistant species of larvae with little hazard and only remote possibilities of the development of arsenic resistance.

The impoundment of water by diking has been found to be an effective means of eliminating *Aedes* breeding on marshes where lack of tides renders ditching and channeling ineffective. Flowing wells are the cheapest means of flooding but pumps are necessary in some situations.

Research has demonstrated that dikes must be constructed in different ways to hold water in different types of soil.

Methods of effectively ditching and filling certain types of marshes are being investigated. Excellent progress has been made in these investigations and findings are already being utilized to advantage in many coastal areas.

The Vero Beach Laboratory is also emphasizing research on the biology and ecology of mosquitoes and the effects of minnows and other predators on larval populations.

#### Tennessee Valley Authority

The research program of the Tennessee Valley Authority includes studies on resistance in *Anopheles quadrimaculatus*, the development of improved larvicides and methods of application for the control of *Anopheles* and flood water *Aedes*, and the ecology and economics of vector and pest species of mosquitoes in impounded areas. In addition, there is a continuing surveillance program to correlate *Anopheles* breeding rates and water level fluctuations in numerous impoundments.

Several methods of selection have thus far failed to produce significant resistance in *A. quadrimaculatus* and none has developed in the field despite the fact that DDT has been used for 15 years in practical control operations. Since resistance to dieldrin apparently has developed in some areas, the possibility is advanced that the response of *quadrimaculatus* to DDT pressure is different from that to dieldrin.

Larvicide research in 1957 showed that 30 percent DDT solution gave better control of *quadrimaculatus* than a proportionately larger volume of 10 percent solution. In tests against flood water species, dosages as high as 0.6 pound per acre of DDT gave very erratic results in meadow areas and 0.9 pound per acre was relatively ineffective in timbered areas.

Ecological studies in 1957 produced a wealth of information on the feeding and dispersal habits of *Anopheles*, *Mansonia*, and *Aedes* in relation to meteorological and environmental factors. While several tentative conclusions might be made from

data available further studies are indicated to accurately determine the influence of the various factors.

#### *U. S. Navy, Bureau of Medicine and Surgery*

In 1957 the U. S. Navy Disease Vector Control Center, Jacksonville, Florida, compared the relative efficacy of aerosols (fogs) produced from commonly used insecticide formulations alone and in combination with organic thiocyanates. The superiority of one formulation over another in reducing adult mosquito density was not clearly established in these tests as DDT, and even diesel fuel oil alone, produced results equal to or better than other more costly formulations. The effectiveness of the aerosols was directly proportional to the thoroughness of coverage, intensity and frequency of treatment, the accuracy of technique and operator experience and training.

At the U. S. Navy Medical Field Research Laboratory, Camp Lejeune, North Carolina, a prototype liquid dispersal unit for use on Marine Corps HRS and Navy HO4S helicopters was completed. The liquid dispersal device consists essentially of a pair of spray booms with Tee-jet nozzles extending out both sides of the fuselage in a delta design, with the pumping assembly and reservoir mounted within the cargo compartment. Work is also under way on the development of a device which will adequately disperse granulated insecticides.

#### *U. S. Public Health Service*

The Technology Branch of the Communicable Disease Center is engaged in all aspects of mosquito control, especially of those species involved in the transmission of diseases.

In 1957 laboratory and field studies of available commercial toxicants as residual treatments against *Anopheles quadrimaculatus* indicated malathion and parathion to be the most promising of the organo-

phosphorus toxicants. Tests in animal-bated huts with dieldrin-resistant *A. quadrimaculatus* showed that malathion (100 or 200 mg./sq. ft.); malathion:dieldrin (100:25 or 50 mg./sq. ft.); malathion:DDT (100 or 200:200 or 100 mg./sq. ft.) and parathion (12.5 mg./sq. ft.) gave 100 percent mortalities for the entire observation period of 4 to 5 months.

The evaluation of a dieldrin wettable powder with or without a resin against *A. quadrimaculatus* adults indicated that incorporation of resin in the formulation did not improve the effectiveness of the deposits on mud surfaces. At field dosages, neither formulation gave satisfactory kill after 2 days aging.

In laboratory tests with *Aedes aegypti* larvae, field strains from Pensacola and Tampa, Florida, were shown to be susceptible to DDT but a strain from Cucuta, Colombia, was found highly resistant to that compound. The resistant strain succumbed readily to malathion and dieldrin treatments.

Studies of *A. quadrimaculatus* in Mississippi showed that dieldrin-resistant strains exist in localities 20 to 50 miles beyond the "Delta" area where exposure of the species to agricultural insecticide treatments was considered to be maximum.

Preliminary tests of malathion dusts versus sprays for space treatments against adult salt marsh mosquitoes indicated that dusts gave higher kills of the mosquitoes and better dispersal of the toxicant. Effective mortalities of caged specimens were obtained with dosage rates of 0.2 to 0.4 lb. per acre.

#### *Research by Other Organizations*

A number of states are known to be conducting extensive research to develop improved methods and materials for the control of their own mosquito problems. New Jersey has a continuing program of research to develop more effective larvicides and adulticides, as well as methods of managing marshes to discourage mosquito breeding and to encourage wildlife



production. In California, special emphasis is being given to the development of more effective methods of source reduction and water management as well as new larvicides for the control of DDT- and malathion-resistant *Culex* and *Aedes* species breeding in irrigation waters. Other states doubtless have research programs designed to provide solutions to their own special problems.

### Conclusions

As indicated in the introduction the Research and Development Committee failed to achieve its objective of compiling a complete report on the status of research on mosquito control. Nevertheless, our limited survey convinces us that research on mosquito control is not being neglected by the organizations contributing to this report. Excellent progress was made in 1957 in finding promising new insecticides and procedures for future use in mosquito control. Other non-reporting research groups have doubtless made significant progress. We therefore conclude that the limited research by various organizations is keeping pace with many of the current needs of mosquito control. However, augmentation in selected areas could provide increased prospects of obtaining even more adequate knowledge of mosquitoes and their ecology and accordingly their control.

Effective mosquito control is no longer entirely dependent upon the findings or advice of major research groups. Today a majority of district control programs are directed by trained entomologists and sanitary engineers who are capable of independent research and of devising methods of control best suited to solve specific local problems. The improvement in the caliber of the directors through training and/or experience has unquestionably resulted in more effective mosquito control. This committee believes that the employment of trained directors will insure maximum progress in mosquito control in future years.

### Recommendations

The foregoing conclusions are made with the idea of assuring the Board that research on mosquito control is on a reasonably sound basis and good progress is being made. The Committee on Research and Development has had little influence in promoting research to its present level and does not feel that it needs to promote research as long as the current research effort meets the immediate needs for effective mosquito control. We therefore recommend that the Committee on Research and Development be inactivated as a "standing committee" and that the President of the Association be given the prerogative of reactivating this committee to function in this capacity if and when the need arises for investigations on specific problems.

Respectfully submitted,

W. C. McDUFFIE, *Chairman*

KENNETH QUARTERMAN

COL. RALPH BUNN

RICHARD PETERS

D. MANLEY JOBBINS

M. W. PROVOST

WM. R. HORSFALL

KENNETH L. KNIGHT

EUGENE J. GERBERG

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### ATTACHMENT #16

#### REPORT OF COMMITTEE ON BYLAWS

There was only one proposed amendment to the bylaws offered during the year. Correspondence by the members of the committee indicated that the matter was controversial; the chairman, therefore, suggested that action on the matter be held in abeyance until the annual meeting at which time the entire committee might consider the proposal.

The committee met at noon on Monday, February 24, 1958, to consider the proposal to amend the bylaws whereby the election of officers would be by mail ballot rather than the present method. After a thorough discussion the following recom-

mendations were adopted by the Bylaws Committee.

1. The Bylaws Committee recommends to the Board of Directors that a poll be made by mail to determine whether the membership of the Association wishes to continue the method of election of officers as now practiced or change to mail ballot.

2. The Bylaws Committee recommends that the results of this poll be made available to the 1958 (next Bylaws Committee) in time for said committee to take appropriate action and to report such action at the 1959 annual meeting of the Association.

Respectfully submitted,

DOYLE REED

T. G. RALEY

R. L. VANNOTE

C. F. SCHEEL

R. E. DORER

K. D. QUARTERMAN

B. B. PEPPER, *Chairman*

#### ATTACHMENT #17

#### Nominating Committee — 1958:

A. W. Lindquist, Chairman, U.S.D.A., Entomology Research Branch, Plant Industry Sta., Beltsville, M.D.—**Southeast Central**; E. J. Stansfield, 917 Riverwood Ave., Fort Gerry, Manit., Canada—**Canada**; C. T. Williamson, Yaphank, L. I., N. Y.—**North Atlantic**; William W. Warner, 2213 Fogarty Ave., Key West, Florida—**South Atlantic**; W. J. Buchanan, P. O. Box 30, Harvey, Illinois—**Northeast Central**; G. C. Collett, 401 City & County Bldg., Salt Lake City, Utah—**Northwest Central**; Dr. Paul R. Meyer, 3801 Lakeshore Drive, Port Arthur, Texas—**Southwest Central**; Gaines W. Eddy, P. O. Box 332, Corvallis, Ore—**North Pacific**; G. Edwin Washburn, P. O. Box 629, Turlock, Calif.—**South Pacific**; Dr. H. P. S. Gillette, P. O. Box

556, Port of Spain, Trinidad, B.W.I.—**Mexico, Central & South America.**

#### ATTACHMENT #18

#### REPORT, RESOLUTIONS COMMITTEE

BE IT RESOLVED: That the American Mosquito Control Association desires to express and record its appreciation and thanks:

1. To the Southeast Central Region, the Virginia Mosquito Control Association and members of the Program and Local Arrangements Committees for the excellent preparations and arrangements provided which have contributed so largely to the success of the Fourteenth Annual Meeting of the Association at Washington, D. C.

2. To the Walter Reed Army Medical Center, the National Institutes of Health, and the Agricultural Center, Beltsville, for their cooperation in arranging interesting and stimulating field trips.

3. To the management and staff of the Willard Hotel for the excellent facilities and services provided during the meeting.

4. To the Editor and staff of *Mosquito News* for their exceptional team effort in maintaining the high professional standard of the Association publication.

5. To the officers, National Advisor and Regional Directors for their generous and effective service to the Association during the past year.

6. To the Standing Committees for their many and diverse contributions in the furtherance of the objectives of the Association.

7. To all those who presented papers, or exhibits, or in other ways contributed to the success of the meetings.

#### RESOLUTION #2

BE IT RESOLVED: That the Association express its sorrow over the passing of several active members during the past year.

## ATTACHMENT #15

## AMERICAN MOSQUITO CONTROL ASSOCIATION, MISCELLANEOUS PUBLICATIONS

## FINANCIAL STATEMENT

December 31, 1957

## CHECKING ACCOUNT

Balance as of January 1, 1957	\$1,307.81
Total Deposits for the year 1957	+ 335.30
	<hr/>
Total expenditures for the year 1957	\$1,643.11
	-1,095.00
	<hr/>
Balance as of December 31, 1957	\$ 548.11

## LIST OF EXPENDITURES

January 1, 1957 to December 31, 1957

<u>Date and Name</u>	<u>Description</u>	<u>Amount</u>
February 25, 1957 American Mosquito Control Association, Inc.	Subscriptions to <i>Mosquito News</i> H. K. Lewis	\$ 15.00
March 20, 1957 American Mosquito Control Association, Inc.	Subscriptions to <i>Mosquito News</i> L. B. Smith	55.00
August 15, 1957 Lester W. Smith	Treasurer AMCA	1,000.00
November 19, 1957 Fannie S. Raymond	Postage	25.00
		<hr/>
TOTAL EXPENDITURES		\$1,095.00

## STATEMENT

December 31, 1957

<u>Bulletin</u>	<u>Number of Books Sold</u>	<u>Accounts Paid</u>	<u>Accounts Outstanding</u>
1 & 2	1524	\$2,980.50	\$77.50
3	774	1,432.00	94.00

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