Other Acknowledgments

In concluding this report of the 125th meeting, besides thanking all members of the local committees, I personally would like to thank Clarence A. Arata (executive director, Washington Convention and Visitors Bureau) and others of his staff, who supplied expert professional assistance and friendly help throughout, as well as the managements and sales managers of the various cooperating hotels—especially Lewis Scherer and Edward Barrett of the Sheraton-Park, Mrs. Alexander of the Shoreham, and their counterparts at the Statler, Dupont Plaza, Washington, and Willard. Their many courtesies and great assistance were essential for the success of the meeting. The secretaries and program chairmen of each section and participating organization cooperated ably, especially with reference to copy and galley proof for the 424-page General Program-Directory, published by the Horn-Shafer Company of Baltimore. Finally, the debt to W. Gilbert Horn of that firm and to his assistant, Miss Stuart Lee Russell, for their able and sympathetic cooperation in seeing the "book" through the press is great.

Awards and Prize Winners

A complete list of the 31st winner of the Newcomb Cleveland prize and recipients of all other awards announced at the Association's seventh Washington meeting appeared in *Science* [129, 137 (1959)] and need not be repeated here.

Public Information Service

Sidney S. Negus

Early last summer Windsor P. Booth, chief of the news service of the National Geographic Society, was invited to be chairman of the local committee on public information for the Washington meeting. Fortunately for the Association, he accepted this invitation and soon appointed his committee of 16 mass-media communication experts to help him set the stage locally for this complex operation. In September, Ella F. Harllee, director of the department of radio and television of the Council of Churches National Capital Area, agreed to help arrange all radio and television programs for the meeting. This team of 20, including Lillian A. Hughes and myself of Richmond, with the aid of public relations director Barbara Norton of the Sheraton-Park Hotel, started active preparations in mid-September for this great scientific gathering, after various preliminaries had been cleared during the summer months. The usual pre-meeting procedures, which have been found successful in the past, were followed [*Science* **127**, 409 (1958)].

Three hundred and eleven accredited representatives of the press, radio, and television registered in the press room at Washington. Sixty-eight other reporters from the United States and abroad reported the meeting from nontechnical abstracts and from complete papers mailed to them upon request before and during the convention. All American and several foreign wire services, many leading newspapers, scientific journals, and news magazines were represented in the press room at the meeting. This exceptional coverage of a scientific meeting is due probably to the fact that the AAAS embraces *all* branches of science and not just one particular scientific field.

The Washington newspapers turned in remarkable displays of good science reporting during the week of the meeting. For the first time at any Association meeting, separate well-staffed press rooms were maintained in the headquarters hotel by two local newspapers—the *Washington Post and Times Herald* (Nate Haseltine in charge) and the *Washington Star* (William Hines as director). In an editorial in the 12 January issue of *Chemical and Engineering News,* Walter J. Murphy wrote, "Unquestionably, it was one of the greatest plays ever accorded a scientific meeting." In thanking the managing editors of the Washington newspapers, Alan T. Waterman wrote "I cannot recall a series of scientific meetings that have been more thoroughly reported or covered with greater variety and interest." For this unusual attention to its annual convention, the Association is grateful to managing editors Alfred Friendly of the *Post,* Herbert F. Corn of the *Star,* and Richard Hollander of the *News.* They and their city editors and reporters set a standard of outstanding science reporting that will be difficult to meet in other communities where the Association will meet in the future.

News stories and wire pictures concerning the meeting were published widely over the world, as is indicated by clippings and letters sent to us by friends from many places in this country and abroad. Requests have been received from individuals in many countries for more information concerning various papers on the program. Feature stories, not requiring close deadlines, are beginning to appear in various publications. As is usually the case, many representatives of magazines registered in the press room solely to get ideas for future articles. Some of these may not appear for months and then with no particular reference to the Washington AAAS meeting.

National radio and television coverage was unusually good. Eleven coast-to-coast radio and television programs were aired by the four major networks, and all local stations (WRC, WTOP, WMAL, WTTG, WWDC) participated in reporting the meeting daily during the week. Eleven talks were taped by the Voice of America.

At the Cosmos Club during the meeting, the Battelle Memorial Institute and the General Dynamics Corporation entertained at a reception and dinner, respectively, members of the National Association of Science Writers. Approximately 250 were present, including wives and special guests.

Luncheons for reporters working in the press room were contributed by the Eaton Laboratories of Norwich, N. Y., the Chesapeake and Potomac Telephone Company, the American Tobacco Research Laboratory, and the U.S. Steel Corporation. Ciba Pharmaceutical Products, Inc., had a delightful reception and luncheon for science writers on one day of the meeting, and Barbara Norton of the Sheraton-Park Hotel invited out-of-town reporters who were present to cover the AAAS convention to the hotel's annual party for the press of Washington. Orange juice in the press room during the meeting was contributed by the Florida Citrus Commission as arranged by Dorothy Noyes. The reception of the Westinghouse Electric Corporation was most enjoyable, as was the industrial science

citation dinner. The General Electric Company Research Laboratory suite has been a rendezvous for science writers for years at AAAS gatherings. Privileges of the National Press Club were obtained for visiting active members of the National Association of Science Writers by John Troan, NASW president. The Association is grateful to these friends of its public information service for helping to make really enjoyable the intensive task of reporting a meeting of this magnitude to the general public.

Thelma C. Heatwole of Staunton, Va., was director of the pressroom. After this experience for seven consecutive annual meetings of the Association, she has become an expert as an intermediary between scientists and the press. Wayne Taylor of Austin, Tex., was again the pressroom photographer, and Foley F. Smith of Richmond, Va., served as an associate. Windsor P. Booth and Ella F. Harllee maintained their headquarters in the pressroom, the latter having a special suite at the Sheraton-Park Hotel for radio and television interviews. These individuals, with the help of William Haskell, Elly Gemmer, and Catherine Borras of the AAAS staff, arranged 15 press conferences during the week and provided source material quickly for the science writers covering the meeting. Largely to these reporters goes the credit for helping to make possible at these annual meetings one of the four principal objectives of the AAAS: to increase public understanding and appreciation of the importance and promise of the method of science in human progress.

The Association is deeply appreciative of the world-wide coverage of its meetings by members of the National Association of Science Writers and other representatives of the Fourth Estate.

Reports of Sections and Societies

Mathematics (Section A)

Section A sponsored three program meetings, all in the Statler Hotel. On Friday afternoon, 26 December, at 4:00 P.M., Einar Hille of Yale University gave his address as retiring vice president of Section A, entitled "Pathology of Infinite Systems of Linear First Order Differential Equations with Constant Coefficients." In this paper Hille showed that most of the nice properties of the system of equations $y' = Ay$, where A is a finite dimensional constant matrix, fail to hold when the dimension of A is infinite.

The meeting at 9:00 A.M. on Saturday morning was cosponsored by the Operations Research Society of America. There were two addresses. The first speaker, Merrill M. Flood of the University of Michigan, spoke on "Mathematical organization theory." He summarized a few recent mathematical approaches to organization science, including n-person game theory, social welfare theory, mathematical programming theory, economic team theory, and stochastic interaction theory. He then stressed the stochastic process model as an abstraction that seems to contain the essence of these several theoretical models and related this to management gaming as the experimental side of this developing organization science.

The second speaker was Clyde Coombs of the University of Michigan, who spoke on "Psychological measurement and a theory of data." He exhibited a mathematical model which provides a foundation for the large variety of psychological-measurement models and classified these models into eight basic classes corresponding to the basic kinds of abstract observations that can be made out of people's responses to stimuli.

The third meeting of Section A was held Sunday morning at 9:30. This was a panel meeting under the chairmanship of Richard S. Burington of the Bureau of Ordnance, U.S. Navy Department, and was built around the central theme, "The Problem of Formulating a Problem." Burington opened the meeting with a discussion of the manner in which mathematical and physical theories are constructed, using examples from the physical sciences as well as from mathematics. J. D. Nicolaides, chief astrodynamicist of the Bureau of Ordnance, Navy Department, spoke on "A substitute for catastrophic missile flight failures," suggesting that the modern science of aeroballistics, if applied to modern ballistic missiles, might minimize the unfortunate flight failures which now plague the national program.

The second speaker, Philip M. Whitman of Johns Hopkins University, expounded "The mathematician's point of view on formulating problems." D. C. May of the Bureau of Ordnance, Navy Department, discussed "The formulation of evaluation problems in engineering and weapons systems analyses," showing that probability concepts, dynamical principles, and common sense all play important roles.

Horace M. Trent of the Naval Research Laboratory spoke on "The formulation of nonlinear theories in fields and continua." In particular he discussed a problem in elasticity which was solved by the use of tensor analysis and invariant theory. John O'Keefe of the Army Map Service discussed "Formulation of problems in geodesy," particularly the problem of delineation of position of place.

The meeting closed with discussion among the panel members and questions from the floor.

C. C. MACDUFFEE, *Secretary*

Physics (Section B)

Recent advances in the frontiers of physics were summarized in four stimulating talks. M. M. Shapiro reported on the progress being made in the analyses of cosmic rays, with special emphasis on their mass spectrum. Part of the talk was devoted to the explanation of how the newly discovered extraterrestrial Van Allen electrons fit into the picture.

R. A. Ferrell gave the story of positronium. He explained how significant measurements on positronium are being made in the field of solid-state physics and pointed to their future use in the establishment of theories dealing with quantum electrodynamics. Joseph Weber in his survey on the status of our knowledge concerning the general theory of relativity was successful in giving a sense of steady but slow progress in this field. Some current tests of the theory, as well as possible future tests, were described.

More in the vein of classical physics was a report given by F. M. Defandorf on lightning. Defandorf first reviewed the accomplishments to date in our understanding of this phenomenon and then