Association Affairs

Preview of Programs at AAAS Washington Meeting

Section and society programs in industrial science, education, and science in general, to be presented at the Washington meeting, are given here. Programs in mathematics, physics, chemistry, astronomy, geology and geography, the biological sciences, anthropology, psychology, the social and economic sciences, the history and philosophy of science, engineering, agriculture, and the medical sciences (including dentistry and pharmacy) have been previously announced.

Industrial Science

Section P. Symposium: "Industrial Science Today: A Status Report on the Satisfaction of Basic Human Needs through Modern Science and Technology"; arranged by Allen T. Bonnell, Drexel Institute of Technology; 29 Dec.; Frank C. Croxton, Battelle Memorial Institute, presiding. Papers by C. G. King, Nutrition Foundation, New York; Preston G. Hoff, E. I. du Pont de Nemours & Company; Edmund Claxton, Armstrong Cork Company; and Floyd S. Daft, National Institutes of Health.

Industrial Science Award Dinner; 29 Dec.; Allen T. Bonnell, presiding.

Society for Industrial Microbiology. Contributed papers, jointly with the Washington Section of the Society for Industrial Microbiology, cosponsored by Section P (Industrial Science); 27 Dec.; Walter N. Ezekiel, Bureau of Mines, presiding. Four papers will be presented.

Symposium and panel discussion, jointly with the Washington Section, cosponsored by Section P (Industrial Science), the American Institute of Biological Sciences, and the American Astronautical Society: "Microbiology in Outer Space Research"; 28 Dec.; Orr E. Reynolds, Office of the Assistant Secretary of Defense, presiding. Papers by Walter N. Ezekiel; R. D. Gafford, Martin Company, Denver, Colo.; Robert W. Krauss, University of Maryland; Alton E. Prince and Sam Bakanauskas, Wright Air Development Center; and Charles P. Sonett, Ramo-Wooldridge Corporation, Los Angeles, Calif.

Education

Section Q. Two sessions of contributed papers, jointly with the Council for Exceptional Children; 26 Dec.; arranged by Norman G. Haring, University of Maryland. Session I, Norman G. Haring presiding; session II, Harold Williamson, U.S. Office of Education, presiding. Nine papers will be presented.

Three sessions of contributed papers; 29 Dec. Session I, Herbert A. Smith, University of Kansas, presiding; session II, P. G. Johnson, Cornell University, presiding; session III, Herbert A. Smith presiding. Fourteen papers will be presented.

Four sessions of contributed papers, jointly with the American Educational Research Association; arranged by Herbert S. Conrad, U.S. Office of Education; 30 Dec. Session I, Herbert S. Conrad presiding; session II, Edward K. Weaver, Atlanta University, presiding; session III, Sam M. Lambert, National Education Association, presiding; session IV, Harry A. Cunningham, Kent State University, presiding. Twenty-three papers will be presented.

Vice-presidential address: "A Few Significant Factors in the History of Science Teaching and Possible Cause and Effect Relationships between These Factors and Present Problems in Teaching Grade and High School Science," by Harry A. Cunningham; 29 Dec.

National Association for Research in Science Teaching. Research symposium; 27 Dec.; arranged by Thomas P. Fraser, Morgan State College, who will preside. Papers by Betty Lockwood Wheeler, Michigan College; Paul E. Blackwood, U.S. Office of Education; Margaret J. McKibben, National Science Teachers Association; William B. Reiner, City of New York Board of Education; John H. Woodburn, Johns Hopkins University; and Herman R. Branson, Howard University; summary by Edward K. Weaver.

National Science Teachers Association. Presentation of science teaching films; arranged by Emery L. Will, State University Teachers College, Oneonta, N.Y., and Wallace Good, Wyandotte High School, Kansas City, Kansas, 27 Dec

Association programs; 27 Dec.; Her-

bert A. Smith, University of Kansas, presiding. Papers by Herbert A. Smith; John S. Richardson, Ohio State University; and Philip G. Johnson, Cornell University.

Three concurrent sessions; 27 Dec. (A) "General Science"; Berenice G. Lamberton, Washington, D.C., presiding; (B) "Chemistry"; Brother Fidelian, Washington, D.C., presiding; (C) "Physics"; Edward North, Arlington, Va., presiding.

Address and panel discussion: "How Science Teachers Can Help Recognize and Develop Intellectual Resources"; 27 Dec.; Donald G. Decker, National Science Teachers Association, presiding; speaker, Charles E. Bish, National Education Association; panel members, Cecile Finley, Maryland; Abell A. Norris, Jr., Maryland; Sylvia Neivert, New York; and Clifford R. Nelson, Massachusetts.

Symposium for Supervisors and Consultants in Science; arranged by Ralph Keirstead, Hartford, Conn.; 27 Dec.; Ellsworth S. Obourn, U.S. Office of Education, presiding. Papers by Frank W. Brown, New Hampshire Committee for Mathematics and Science; Wayne Taylor, Texas Science Teaching Improvement Program; Franklin D. Kizer, Virginia State Board of Education; Lee E. Boyer, Pennsylvania Department of Public Instruction; and Hugh Templeton, New York Education Department.

Symposium, jointly with the National Association for Research in Science Teaching and Section Q (Education): "New Developments in Science"; arranged by Ellsworth S. Obourn; 28 Dec.; Randall M. Whaley, National Academy of Sciences, presiding. Papers by J. Ned Bryan, North Central Association Study of Talented Students, Chicago; Milton O. Pella, University of Wisconsin; Robert L. Ebel, Educational Testing Service, Princeton, N.J.; Kenneth E. Vordenberg, supervisor of science, Cincinnati Public Schools; Charles C. Smith, Wayne, Pa.; and H. V. Bullock, Georgia State Consultant for Science.

Visits to the Agricultural Research Center, the National Institutes of Health, and the National Bureau of Standards;

Symposium on the National Defense Education Act of 1958; 29 Dec.; arranged by Robert H. Carleton, National Science Teachers Association, who will preside.

National Association of Biology Teachers. Symposium: "Biology in the Science Curriculum"; arranged by Paul Klinge, Indiana University; 27 Dec.; Dorothy Matala, Iowa State Teachers College, presiding. Papers by Julian L. Solinger, Simmons College; Herman S. Forest, University of Oklahoma; J. David Lock-

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ard, Pennsylvania State University; Rex Conyers, University City, Mo.; Elra M. Palmer, Baltimore Public Schools; and Annie Sue Brown, Board of Education, Atlanta, Ga.

Symposium: "Biology in the Classroom, Laboratory, and Field"; arranged by Paul Klinge; 27 Dec.; Irene Hollenbeck, Southern Oregon College, presiding. Papers by Marvin R. Bell, Indiana State Teachers College; Kenneth B. M. Crooks, Grambling College; William Howenstine, Cleveland Heights, Ohio; Margaret M. Murray, Chicago, Ill.; and Richard L. Weaver, University of Michigan.

Address: "Crucial Competition with Russia in Science Education," by Oscar Riddle, Plant City, Fla.; 28 Dec.; Irene Hollenbeck, presiding.

Symposium: "What Is Biology"; arranged by Paul Klinge, 28 Dec.; Irving C. Keene, Brookline, Mass., presiding. Papers by Chester A. Lawson, Michigan State University; Richard E. Paulson, National Science Foundation; and Audrey Pressler, Frederick, Md.

Symposium: "The Advanced Biology Course"; arranged by Paul Klinge; 29 Dec.; John Breukelman, State Teachers College, Emporia, Kansas, presiding. Papers by Phillip Fordyce, Oak Park, Ill.; Lula A. Miller, Washington, D.C.; and William S. Putnam, St. Louis, Mo.

American Nature Study Society.

Three-session symposium: "Fifty Years Ahead"; 27 and 28 Dec.

Part I: "ANSS Looks Ahead in the Light of the First Half Century"; Stanley B. Mulaik, University of Utah, presiding. Papers by E. Laurence Palmer, Ithaca, N.Y.; Joseph J. Shomon, Commission of Game and Inland Fisheries, Richmond, Va.; John Brainerd, Nature Conservancy, Springfield, Mass.; Lester A. Giles, Jr., American Humane Education Society, Boston, Mass.; and Ira N. Gabrielson, Wildlife Management Institute, Washington, D.C.

Part II: "An Action Program for the ANSS during the Next Decade"; S. Glidden Baldwin, Danville, Ill., presiding. Papers by Rex Conyers, University City, Mo.; Verne N. Rockcastle, Cornell University; C. W. Mattison, U.S. Forest Service; and Anne Verne Fuller, Western Michigan University.

Part III: "Creating a Better Nature Study Teaching Environment to Improve Nature Interest in Schools: What Role Can the ANSS Play in the Next Decade?"; Emery L. Will, Oneonta, N.Y., presiding. Papers by Martha Munzer, Conservation Foundation; Edith Curry, La Mesa, Calif.; Roland C. Ross, Los Angeles State College; and Stanley B. Mulaik.

Symposium, jointly with the National Science Teachers Association: "Elementary Science"; arranged by Marjorie Campbell, Washington, D.C., Teachers College, and C. W. Mattison; 29 Dec.; Richard L. Weaver, University of Michigan, presiding. Papers by Robert Hines, U.S. Fish and Wildlife Service; Rudolph Wendlein, U.S. Forest Service; and John T. Gibbs and Irving Milgate, Conservation Foundation.

Annual banquet and address: "Searching for Flamingos on Four Continents," by Roger Tory Peterson, Old Lyme, Conn.; 29 Dec.; Richard Weaver presiding.

Science in General

American Association of Scientific Workers. Conference on the Participation of Women in Science, cosponsored by the American Woman's Association, the Business and Professional Women's Foundation, the National Council of Women of the United States, the National Federation of Business and Professional Women's Clubs (including the D.C. State Federation), and Sigma Delta Epsilon; arranged by Murray Vernon King, American Association of Scientific Workers; 29 Dec.; comprising addresses, discussion, panel workshops, and reports. Speakers and moderators: Elizabeth Wood, Bell Telephone Laboratories; Anne Steinmann, Hofstra College; and Dwight B. McNair Scott, University of Pennsylvania.

Conference on Scientific Communication. Symposium: "Communicating Science in Translations"; arranged by the

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Society of Federal Translators; 29 Dec.; J. George Adashko (College of the City of New York), editor of Soviet Physics, presiding. Papers by Antoinette Pingell, U.S. Naval Research Laboratory; Lillian A. Hamrick, U.S. Department of Commerce; Philip H. Smith, Jr., Georgetown University; and Kay Kitagawa, Library of Congress.

"Communicating Science in Major Programs"; presented by Arnold Frutkin, Special Committee for the International Geophysical Year, National Acad-

emy of Sciences; 29 Dec.
Symposium: "Communicating Science in Three Dimensions"; 30 Dec.;

Leonard Rennie, Design and Production, Inc., Alexandria, Va., presiding. Papers by Robert P. Multhauf and George S. Switzer, Smithsonian Institution, and by

Axel Horn, New York, N.Y.
Symposium: "Communicating Science in Specialized Libraries"; arranged by the Washington, D.C., Chapter, Special Libraries Association; 30 Dec.; Verner W. Clapp, Council on Library Resources, Inc., presiding. Papers by Frank B. Rogers, National Library of Medicine; John Sherrod, Library of Congress; Burton W. Adkinson, National Science Foundation; and Foster E. Mohrhardt, U.S. Department of Agriculture Library.

Conference on Scientific Manpower. Two-session symposium, cosponsored by the Engineering Manpower Commission, Scientific Manpower Commission, National Research Council, National Science Foundation, and Section M (Engineering): "The Employment Situation for Scientists and Engineers in 1959"; 30 Dec.

Part I: Henry A. Barton, Scientific Manpower Commission, presiding. Papers by Henry H. Armsby, U.S. Office of Education; Frank S. Endicott, Northwestern University; Phil N. Scheid, Hughes Aircraft Company; Clarence H. Linder, General Electric Company; Robley Winfrey, Bureau of Public Roads, Washington, D.C.; and Ray C. Maul, National Education Association.

Part II: G. E. Arnold, Engineering Manpower Commission, presiding. Papers by N. J. Oganovic, U.S. Civil Service Commission; William H. Chartener, McGraw-Hill Publishing Company; and Irving H. Siegel, U.S. Council of Economic Advisors.

InternationalGeophysical Three-session symposium, joint program of the AAAS and the U.S. National Committee for IGY of the National Academy of Sciences-National Research Council, cosponsored by the American Geophysical Union: "International Geophysical Year Results"; arranged by a committee, Hugh Odishaw, National Academy of Sciences, chairman; 29 and 30 Dec.

Part I: "Arctic and Antarctic"; Hugh Odishaw presiding. Papers by Carl Eklund, U.S. Army Office of Research and Development; George A. Llano, National Academy of Sciences; Troy L. Péwé, University of Alaska; Irene M. Browne, Air Force Cambridge Research Center, Bedford, Mass.; and Kenneth Hunkens, Columbia University.

Part II, cosponsored by the American Astronautical Society and the American Rocket Society: "Rockets and Satellites"; Richard W. Porter, General Electric Company, presiding. Papers by John W. Townsend, Jr., National Aeronautics and Space Administration, and Herbert Friedman, Naval Research Laboratory.

Part III, cosponsored by the American Meteorological Society: "Meteorology, Oceanography, Glaciology"; Harry Wexler, U.S. Weather Bureau, presiding. Papers by Gordon D. Cartwright, U.S. Weather Bureau; F. C. Fuglister, Woods Hole Oceanographic Institution; John Antoine, Columbia University; Sidney Teweles, U.S. Weather Bureau; William W. Vickers, McGill University; and James Bender, U.S. Army Snow Ice and Permafrost Research Establishment.

Scientific Research Society of America. Annual address: "An Analogy: Individual Education and Industrial Research," by C. Guy Suits, General

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Electric Company; 29 Dec.; George H. Boyd, presiding.

Sigma Delta Epsilon Graduate Women's Science Fraternity. Address: "The Status of American Women Scientists," by Ethaline Cortelyou, Illinois Institute of Technology; 30 Dec.; Mary Louise Robbins, George Washington University, presiding.

Society of the Sigma Xi. Annual address, jointly with the United Chapters of Phi Beta Kappa: "Science and Public Policy," by James R. Killian, Jr., science adviser to the President of the United States; 29 Dec.; Wallace R. Brode, U.S. Department of State, presiding.

Meetings

High-Energy Physics

The 1958 annual International Conference on High Energy Physics was held in Geneva, Switzerland, from 27 June to 5 July, under the sponsorship of CERN (Organisation Européenne pour la Recherche Nucléaire) and of the International Union of Pure and Applied Physics. The chairman of the conference was C. J. Bakker, director of CERN. This conference was the eighth of a series of annual conferences on high-

energy physics, of which the first seven were held at the University of Rochester (United States). The more than 300 participants at the 1958 conference included about 100 Americans, 30 British 20 French, 20 Italians, 20 Russians, and an excellent representation from 25 other countries. A record was probably set in the number of Nobel laureates attending; Anderson, Blackett, Cockcroft, Heisenberg, Lawrence, Lee, McMillan, Pauli, Powell, Yang, and Yukawa were all present.

Various novel organizational procedures were tried at this conference, including two days of organizing sessions (to bring together the contributors and rapporteurs) and a thoroughgoing adoption of the rapporteur system during the plenary sessions. On the whole, these innovations were very successful, and a much more unified picture of the latest theoretical and experimental developments in the high-energy field emerged for most of the participants. The proceedings of the conference (under the editorship of B. Ferretti of CERN) have been published by CERN, Geneva.

There were nine plenary sessions at the 1958 conference, as follows: session 1, on "Nucleon structure" [I. E. Tamm (U.S.S.R.), chairman; W. K. H. Panofsky (Stanford), experimental rapporteur; and S. Drell (Stanford), theoretical rapporteur]; session 2, on the "Nucleon and its interaction with pions, photons, nucleons and antinucleons" S. I. Nikitin (Dubna), chairman; G. Puppi (Bologna) and O. Piccioni (Berkeley), experimental rapporteurs]; session 3, on the "Nucleon and its interaction with pions, photons, nucleons and antinucleons" [R. E. Peierls (Birmingham), chairman, and G. F. Chew (Berkeley), theoretical rapporteur]; session 4, on "Fundamental theoretical ideas" [W. Pauli (Zurich), chairman]; session 5, on "Strange particle production" [C. C. Butler (London), chairman; J. Steinberger (Columbia), experimental rapporteur, and M. Gell-Mann (California Institute of Technology), theoretical rapporteur]; session 6, on "Strange particle interaction" [D. I. Blokhintsev (Dubna), chairman, M. F. Kaplon (Rochester), experimental rapporteur, and R. H. Dalitz (Chicago), theoretical rapporteur]; session 7, on "Special topics" [T. D. Lee (Columbia), chairman]; session 8, on "Weak interactions: Leptonic modes" [A. Salam (London), chairman, M. Goldhaber (Brookhaven), experimental rapporteur, and L. Michel (Lille), theoretical rapporteur]; session 9, on "Weak interactions: Other modes" [R. E. Marshak (Rochester), chairman, D. A. Glaser (Michigan), experimental rapporteur, and S. B. Treiman (Princeton), theoretical rapporteur]. Sessions 4 and 7 were "classical" theoretical sessions in the sense that original contributions were presented by quite a number of partici-





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