Scientific Meetings

Cosmic-Ray Colloquium

The Midwest Cosmic-Ray Colloquium has been meeting now at various midwestern universities for about 5 years. Usually, one or two meetings are held each year. The interest has grown so much that the recent meeting at the University of Minnesota was extended into a 2-day meeting, with the first day occupied by discussions of primary cosmic rays and the second day by discussion of high-energy particle physics.

Papers on the first morning program were concerned with general measurements of the primary radiation and recent results on the soft radiation above the atmosphere, by the Universities of Iowa and Minnesota. The afternoon session was concerned with a discussion of the large solar eruption of 23 Feb. 1956, during which the largest increases in cosmic-ray intensity so far observed were recorded. In this respect the meeting was timely, because many of the important data were at hand from both high-altitude flights and sea-level monitoring stations. It is known that the sun at this time emitted a large amount of cosmic radiation extending up to 20×10^9 volts, which increased normal cosmic-ray intensities by at least a factor of 20 and probably more at the top of the atmosphere. The cosmic rays died away exponentially with time, and the effects of the flare had disappeared in 24 hours. Results were presented by Iowa, Chicago, and Minnesota.

Sessions on the second day were concerned with reports of emulsion and cloud-chamber work on the heavy mesons and hyperons by groups from Chicago, Wisconsin, Indiana, Minnesota, Purdue, and Nebraska. The program proceeded at a fairly leisurely pace with ample time for discussion. There seems to be a solid interest among the midwestern universities in this work, and bids have already been made for entertaining the colloquium at later dates.

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Meeting Notes

■ More than 500 specialists in sound and noise control will participate in the second International Congress on Acoustics that will take place in Cambridge, Mass., 17–23 June, under the sponsorship of the International Commission on Acoustics. Harvard University and the Massachusetts Institute of Technology will be joint hosts for the meeting, which will be held in conjunction with the 51st meeting of the Acoustical Society of America.

More than 100 technical contributions have been received from abroad: they will be presented by scientists from Argentina, Belgium, Canada, Denmark, England, France, Germany, Hungary, India, Italy, Japan, the Netherlands, Norway, the Soviet Union, the Saar, Sweden, and Turkey. The technical program will be organized around three major symposia: (i) bioacoustics and noise control—human responses to sound (including hearing, psychological response, and biological effects) and noise-control methods to meet these responses; (ii) architectural and musical acoustics —the production of music and speech sounds and the design of enclosures for good hearing conditions; and (iii) physical acoustics and sonics—acoustical studies of matter, propagation of sound, and application of acoustical techniques to technical problems.

There will be special demonstrations of speech analysis and syntheses, and exhibits will be prepared for the congress by many scientific, technical, and manufacturing concerns throughout the world. Richard H. Bolt, director of the Acoustics Laboratory at the Massachusetts Institute of Technology, is chairman of the planning committee for the congress, and John A. Kessler, administrative officer in the Acoustics Laboratory, is congress secretary.

■ The new Arizona Academy of Science is now well established. Some 125 people participated in the first organizational meeting, at which a provisional constitution was approved and the following officers were elected: pres., Alan T. Wager, Arizona State College; pres.-elect, Albert R. Mead, University of Arizona; sec., Albert G. Wilson, Lowell Observatory, Flagstaff; treas., Virgil E. Bottom, Motorola Research Laboratory, Phoenix.

At a second meeting chairmen were appointed for standing committees and the petitions of sections desiring organization were received. The industrial research section already is active and has more than 50 members. At this meeting charter membership was extended to 30 Apr. 1956 so that there are approximately 300 charter members. In addition, tentative plans were made for both a fall meeting and a spring meeting, the latter to be held in conjunction with the Southwestern and Rocky Mountain Division meeting of AAAS that is scheduled to take place 28 Apr.–2 May 1957 at the University of Arizona.

The academy owes its existence, in part, to the encouragement of C. M. Goethe, who had deposited funds with the treasurer of AAAS to be used to help defray the expenses of the organization of an academy of science in Arizona. When he learned of the plans for such a group, he made further contributions directly to the organizers. Fifty dollars of such funds were designated by him to assist in the formation of a junior academy. Since the organizing meetings were held, Goethe has again contributed.

■ A 2-day symposium, New Horizons in Astronomy, will be held in celebration of the dedication of the University of Pennsylvania's new Flower and Cook Observatory, near Paoli, Pa., 11–12 June. Astronomers from Europe and the United States will present papers. Otto Struve, director of the Leuschner Observatory (University of California), will preside.

The first day will be devoted largely to reports on developments in electronic observation; the second day, to astronomy itself. Underlying the whole symposium will be an emphasis on the future of telescopes of moderate size.

The actual dedication, which will take place on the first evening, will be highlighted by the first formal demonstration of the Newton Lacy Pierce memorial photometer, development of which was started by Pierce of Princeton University before his death in 1950. The Pierce photometer embodies advanced practices in electronic observation. It measures star brightness by the pulse-counting technique (counting the groups of electrons given off by a photocell struck by starlight), thereby feeding digital data into an automatic printer. Moreover, it observes two stars simultaneously, using one of known brightness as a reference in gaging the intensity of the other.

To close the symposium, Fred Whipple, director of the Smithsonian Institution's Astrophysical Observatory, will report on "The artificial satellite—the first man-made astronomical object."

Participants from abroad include André Lallemand, Laboratoire de Physique Astronomique, Observatoire de Paris, France, "La télescope électronique"; J. D. McGee, Imperial College of Science and Technology, University of London, England, "The charge image integrating tube"; and Peter Fellgett,

Cambridge University, England, "Television techniques in modern astronomy."

The new Flower and Cook Observatory combines the functions of Pennsylvania's old Flower Observatory, Highland Park, Pa., and Cook Observatory, Wynnewood, Pa., retaining the names of the late donors, Reese Wall Flower and Gustavus Wynne Cook. The L-shaped building is surmounted at one end by a 27-foot movable dome. It houses a 28½-inch reflecting telescope and a 15-inch horizontal telescope with a siderostat.

■ The 88th annual meeting of the Kansas Academy of Science was held at Southwestern College 26–28 Apr. The Kansas Psychological Association also participated in the program. Approximately 100 papers representing the fields of botany and microbiology, chemistry, geology, physics, psychology, and zoology were presented. In addition, the best 21 papers given at the district meetings of the junior academy were integrated into the senior academy program. D. J. Ameel, head of the department of Zoology at Kansas State College, and president of the academy, delivered the principal address, "Maintenance of parasitism."

■ At least 1500 members of the American Society for Engineering Education, which includes engineering teachers from more than 150 American colleges and universities, are expected to attend the society's 64th annual meeting 25–29 June at Iowa State College. More than 200 papers devoted to increasing the effectiveness of American engineering education will be given during the 5-day period.

In addition to reports on current projects of the society, the principal interests at the meeting will focus on such topics as the impact of recent research on engineering education, the college faculty crisis, engineering training for the nuclear industry, and future trends in the supply and demand for engineering graduates.

Maynard M. Boring, president of the society, will deliver his presidential address at the convention's second general session on 26 June. He is consultant on engineering manpower for the General Electric Company and has been for many years active in the Engineering Manpower Commission of the Engineers Joint Council.

Sen. Bourke B. Hickenlooper (R., Ia.), formerly chairman and now member of the Joint Committee on Atomic Energy, is to be the principal speaker at the annual banquet. He will discuss "Some peaceful uses of atomic energy."

Others scheduled to give major papers during the week-long convention include Earl P. Stevenson, chairman of the board of Arthur D. Little, Inc.; James H. Hilton, president of Iowa State College; Merrill M. Flood of the Columbia Research Foundation; W. G. Van Note, president of Clarkson College of Technology; and William L. Everitt, dean of engineering at the University of Illinois.

■ "High temperature—a tool for the future" is the theme chosen for a symposium that is to be held at the University of California, Berkeley, 25–27 June. The university and the Stanford Research Institute are cosponsoring the meeting, which is expected to attract 350 metallurgists, ceramists, geologists, physicists, chemists, and engineers. The discussions will deal with advances in the major fields of high-temperature research. The keynote speaker at the luncheon on 26 June will be Theodore von Karman, chairman of the Advisory Group for Aeronautical Research and Development, a NATO agency with headquarters in Paris, France.

The opening day panels will be devoted to "Methods of reaching high temperatures" and will have as cosponsor the Air Office of Scientific Research, U.S. Air Research and Development Command. Chairman will be Nevin K. Hiester, manager of S.R.I's chemical engineering section; assistant chairman will be Joseph A. Pask, professor of ceramic engineering at the University of California. Speakers will discuss solar, arc, and flame images, electric heat, and chemical and nuclear processes as sources of temperatures as high as 18,000°F.

The National Science Foundation will cosponsor the second day's program on "Materials for containing high temperatures." Alan W. Searcy, U.C. associate professor of ceramic engineering, will chair the proceedings, aided by Thomas E. Tietz, S.R.I. associate physical metallurgist, as assistant chairman. This session will deal with structures and properties of materials for high-temperature use and equilibrium and kinetic considerations involved in their environmental interactions.

The symposium will close with a discussion of "Processes occurring at high temperatures." The Office of Naval Research will be cosponsor for the day. Leo Brewer, U.C. professor of chemistry, and Marjorie W. Evans, S.R.I. senior physical chemist, are to be chairman and assistant chairman, respectively. This gathering will discuss such chemical responses under high temperatures as gas-state and condensed-state reactions and gas- and condensed-phase interactions.

Society Elections

■ American Academy of Arts and Sciences: pres., John E. Burchard, Massachusetts Institute of Technology; v. pres. for mathematical and physical sciences, John H. Van Vleck, Harvard University; v. pres. for biological sciences, Hudson Hoagland, Worcester Foundation for Experimental Biology; v. pres. for social arts and sciences, David F. Edwards, Saco-Lowell Shops, Boston; v. pres. for the humanities, W. Freeman Twaddell, Brown University; sec., Bruce H. Billings, Baird Associates, Cambridge, Mass.; treas., Thomas B. Adams, Sheraton Corporation, Boston.

■ American Association of Anatomists: pres., E. A. Boyden; pres. elect, Barry J. Anson; pres. emeritus, Samuel R. Detwiler; 1st v. pres., William W. Greulich; 2nd v. pres., O. V. Batson; program sec., Oliver P. Jones; sec.-treas., Louis B. Flexner.

■ American Association of Physical Anthropologists: pres., Mildred Trotter, Washington University School of Medicine; v. pres., Joseph B. Birdsell, University of California; sec.-treas., James N. Spuhler, University of Michigan. Representatives to the AAAS Council are J. Lawrence Angel and Carleton S. Coon.

■ Iowa Academy of Science: pres., W. F. Loehwing, State University of Iowa; v. pres., J. J. L. Hinrichsen, Iowa State College; sec.-treas. and representative to the AAAS Council, Jean L. Laffoon.

■ Kansas Academy of Science: pres., H. S. Choguill, Fort Hays Kansas State College; pres. elect, W. H. Horr, University of Kansas; v. pres., T. F. Andrews, Kansas State Teachers College; sec., C. T. Rogerson, Kansas State College; treas., Standlee Dalton, Fort Hays Kansas State College.

■ Louisiana Academy of Sciences and the New Orleans Academy of Sciences: pres., Timothy L. Duggan, department of biological sciences, Loyola University; v. pres., Leon Segal, Southern Regional Experimental Station; sec., Arthur Welden, department of biology, Newcomb College; treas., H. B. Mouton, Bridgedale Day School.

■ North Dakota Academy of Science: pres., W. E. Cornatzer, University of North Dakota; pres. elect, W. Whitman, North Dakota Agricultural College; sec.-treas., Ben Gustafson, University of North Dakota.

■ Hawaiian Academy of Science: pres., Albert J. Mangelsdorf, Hawaiian Sugar Planters' Association, Honolulu; pres. elect, Andrew W. Lind, University of Hawaii; sec., Doak C. Cox, Hawaiian Sugar Planters' Association; treas., Beatrice Krauss, Pineapple Research Institute. Representative to the AAAS Council is Leroy D. Christenson.

Forthcoming Events

June

25–27. Health Physics Soc., Ann Arbor, Mich. (J. V. Nehemias, Univ. of Michigan, Ann Arbor.)

25–29. Ship Behavior at Sea, seminar, Hoboken, N.J. (Experimental Towing Tank Laboratory, Stevens Inst. of Technology, 711 Hudson St., Hoboken.)

25–30. International Assoc. for Bridge and Structural Engineering, 5th cong., Lisbon, Portugal. (M. L. Gretner, Swiss Federal Inst. of Technology, Zurich, Switzerland.)

26–28. Entomological Soc. of America, Pacific Branch, Berkeley, Calif. (L. M. Smith, Dept. of Entomology, Univ. of California, Davis.)

26–29. American Home Economics Assoc., annual, Washington, D.C. (Miss M. Horton, AHEA, 1600 20 St., NW, Washington 9.)

28–1. International Scientific Conf. of Rheumatism, Aix-les-Bains, France. (M. Graber-Duvernay, 6, rue de Liege, Aix-les-Bains.)

28–1. Symposium on Comparative Biology of Aquatic Species, Roscoff, Brittany, France. (G. Montalenti, Instituto di Genetica, Naples, Italy.)

July

1–7. International Conf. on Nuclear Reactions, Amsterdam, Netherlands. (S. A. Wouthuysen, Zeeman Laboratorium, Pl. Muidergracht 4, Amsterdam (C).)

1–7. National Education Assoc., Portland, Oreg. (W. G. Carr, NEA, 1201 16 St., NW, Washington, D.C.)

2. Astronomical League, Miami, Fla. (W. A. Cherup, 4 Klopfer St., Millvale, Pittsburgh 9, Pa.)

2. Gamma Sigma Delta Biennial Conclave, Ames, Iowa. (J. A. Johnson, Dept. of Flour and Feed Milling Industry, Kansas State College, Manhattan.)

2–3. National Science Teachers Assoc., Corvallis, Oreg. (R. H. Carleton, NSTA, 1201 16 St., NW, Washington 6.)

2–7. Brazilian Soc. for the Progress of Science, 8th annual, Ouro Preto, Minas Gerais. (Sociedade Brasileira para o Progresso da Ciencia, Caixa Postal 2926, São Paulo, Brazil.)

6–14. International Union of Forestry Research Organizations, 12th cong., Oxford, England. (Secretariat of Union, Viale delle Terme di Caracalla, Rome, Italy.)

9–11. Symposium on Chemical Additives in Foods, 2nd of 5 symposiums, Amsterdam, Netherlands. (H. F. DuPont, International Bureau of Analytical Chemistry, 18 Ave. de Villars, Paris 7.)

11–14. American Malacological Union, annual, San Diego, Calif. (Mrs. M. C. Teskey, P.O. Box 238, Marinette, Wis.)

12–14. International Astrophysical Symposium on Molecules in Cosmic Sources, 7th, Liege, Belgium. (H. C. Urey, Inst. for Nuclear Studies, Univ. of Chicago, Chicago 37, Ill.)

16–17. Symposium on Synthetic Polymer Chemistry, Notre Dame, Ind. (G. F. D'Alelio, Dept. of Chemistry, Univ. of Notre Dame, Notre Dame.)

16–21. French Assoc. for the Advance-

ment of Science, Dijon, France. (Mlle. Henri-Martin, Secretary, 28, rue Serpente, Paris 6e.)

17–26. International Soc. of Photogrammetry, 8th cong., Stockholm, Sweden. (P. O. Fagerholm, Bragevägen 8, Stockholm.)

18–20. Soc. for the Study of Development and Growth, annual, Providence, R.I. (M. V. Edds, Jr., Brown Univ., Providence 12.)

22–27. International Cong. of Pediatrics, 8th, Copenhagen, Denmark. (Prof. Franconi, Kinderspital, Steinwiesstrasse 75, Zürich 32, Switzerland.)

22–28. International Cong. on Housing and Town Planning, Vienna, Austria. (H. van der Weijde, International Federation for Housing and Town Planning, Paleisstraat 5, The Hague, Netherlands.)

22–28. International Cong. of Radiology, 8th, Mexico, D.F., Mexico. (J. Noriega, Tepic 126, 2° piso, Mexico, D.F.)

23–26. International Cong. of Developmental Biology, 1st, Providence, R.I. (J. W. Wilson, Dept. of Biology, Brown Univ., Providence.)

25–27. Conf. on Solar-Weather Relationships sponsored by American Meteorological Soc., Boulder, Colo. (K. C. Spengler, 3 Joy St., Boston 8, Mass.)

26–28. International Conf. on Biochemical Problems of Lipids, 3rd, Brussels, Belgium. (R. Ruyssen, St. Jansvest 12, Univ. of Ghent, Ghent, Belgium.)

27–31. Symposium on Cytodifferentiation (invitational), Providence, R.I. (J. W. Wilson, Dept. of Biology, Brown Univ., Providence.)

27–7. International Limnology Cong., 13th, Helsinki, Finland. (H. Luther, Snellmansgatan 16 C 36, Helsinki.)

30–4. International Physiological Cong., 20th, Brussels, Belgium. (J. J. Reuse, Faculté de Medecine, 115 Boulevard de Waterloo, Brussels.)

August

1–6. International Cong. of Human Genetics, 1st, Copenhagen, Denmark. (Secretariate, 1st ICHG, 14, Tagensvej, Copenhagen, N.)

5–10. International Conf. of Social Work, 8th, Munich, Germany. (J. R. Hoffer, 345 E. 46 St., New York 17.)

6–10. Poultry Science Assoc., annual, Raleigh, N.C. (C. B. Ryan, Dept. of Poultry Husbandry, Texas A & M College, College Station.)

6–1. International Mathematical Symposium on Algebraic Topology and Its Applications, Mexico City, Mexico. (Miss J. Silva, Instituto de Matemáticas, Torre de Ciencias, Ciudad Universitaria, México 20, D.F.)

9–18. International Geographical Cong., 18th, Rio de Janeiro, Brazil. (H. O'R. Sternberg, Centro de Pesquisas de Geografia do Brasil, Faculdade Nacional de Filosofia, Av. Presidente Antonio Carlos 40, Rio de Janeiro.)

15–22. Canadian Teachers' Federation, Fredericton, N.B., Canada. (G. G. Croskery, 444 MacLaren St., Ottawa, Ont.)

16–21. Symposium on X-Ray Microscopy and Microradiography, Cambridge, England. (W. C. Nixon, Cavendish Lab., Cambridge.)

(See issue of 18 May for comprehensive list)