

# Scientific Meetings

## International Astronomical Union

The 9th general assembly of the International Astronomical Union took place in Dublin between 29 Aug. and 5 Sept. About 650 astronomers from 41 countries attended two general assembly meetings and several dozen scientific symposia and discussion groups. Thirty-seven of the 41 countries officially adhere to the union. The largest delegation, of 110 astronomers, came from the United States. More than 100 astronomers represented Great Britain and Northern Ireland. The Soviet Union sent 21 delegates. Communist China was represented by four delegates. They, and the delegation from Argentina, had come in response to an official appeal by the president, who had stressed the importance to astronomy of securing the widest possible distribution of astronomical observations over the surface of the earth. Some of the scientific highlights of the meeting were the following.

1) M. Walker (Mount Wilson and Palomar) demonstrated a periodic variation in the brightness of DQ (Nova) Herculis, outside of eclipse, with a period of about 64 seconds and an amplitude of several hundredths of a magnitude (10 or more times greater than the accidental scatter). This ushers in a new era of *micro*-astronomy.

2) J. H. Oort and Th. Walraven (Leiden, Holland) reported their observations of the plane-parallel polarization of the light of the amorphous part of the Crab nebula, which reaches nearly 100 percent in certain regions. This result, already foreshadowed by work of Vashakidze and Dombrovsky in the U.S.S.R., implies that the continuous radiation of the nebula is due to electrons of  $2 \times 10^{11}$  electron volts of energy, in a magnetic field of the order of  $10^{-3}$  gauss. The total energy of the particles in the nebula is about 1/1000 of the entire amount of energy available inside the sun by the conversion of all of its hydrogen into helium.

3) R. R. McMath and L. Goldberg (Michigan) demonstrated solar spectra obtained with a large vacuum spectrograph. The Doppler effects of the turbulent motions of the granules and the variations in the Stark broadening of the

hydrogen lines are correlated with local fluctuations of temperature on the solar disk. This opens up a new field of solar research.

4) W. Baade (Mount Wilson and Palomar) presented his structural analysis of the Andromeda galaxy with its sharply defined spiral arms of dust, gas, and young stars and its large "halo" of old stars and globular clusters. This analysis permits far-reaching conclusions with regard to the structure of the Milky Way.

5) G. Herbig (Lick Observatory) reported his discovery of several new luminous objects—which may be proto-stars—in the Orion nebula.

6) C. Fehrenbach (France), and C. Schalén (Sweden) presented their measurements of stellar radial velocities with objective prisms. These astronomers have finally succeeded in developing an optical system sufficiently free of systematic field corrections to produce reliable results for large numbers of very faint stars. This should revolutionize our knowledge of the kinematics of the Milky Way.

7) G. G. Getmanzev, K. S. Stankevitch, and V. S. Troitsky (U.S.S.R.) announced that they have detected an absorption line at 91.6 centimeters in the radio-emission spectrum of the central bulge of the Milky Way. They identify this line with the forbidden transition of interstellar deuterium (as predicted by Shklovsky) and derive for the latter a preliminary value of the concentration that is 1/300 of the concentration of hydrogen.

The general membership of the union, as approved in Dublin, was proposed by a nominating committee under the chairmanship of W. M. H. Greaves (Scotland). Each national committee had previously been requested to submit lists of their nationals to the nominating committee; these lists were then scrutinized by the chairmen of the various standing commissions, and their recommendations were in all cases referred back to the national organizations. Hence, as the lists of members of the commissions now appear in the mimeographed bulletin distributed at Dublin, they reflect essentially the wishes of the national organizations.

Beginning at the present time the by-

laws have been changed in such a way that they provide for "general membership" in the union without assignment to any particular commission. The purpose of this change (proposed by a committee consisting of Oort, H. Spencer Jones, P. G. Kulikovskiy, and B. Strömberg) is to reduce gradually the numbers of persons assigned to standing commissions and ultimately also to reduce the number of separate commissions and subcommissions.

The principal aim of the union is to plan research for the future. The symposia, joint discussions, and conferences of standing commissions form the necessary background for this planning. They are not, therefore, primarily intended as a medium for the communication of results already obtained. Lack of understanding on the part of many astronomers of this basic principle has led to a tremendous amount of pressure on the part of enthusiastic research workers who come to the meetings loaded with papers, slides, and so forth, and who expect to be assigned time on the program for the presentation of their results. It should be clearly understood that the organizers of the symposia and other scientific conferences do not necessarily invite as speakers those astronomers who have produced the most significant advances. They are expected to encourage work in neglected fields, to stimulate new types of research in countries that have lagged behind, and to bring together workers from different areas in order to promote a new type of research. An interesting example of the latter type of conference was the joint discussion on image tubes organized by a special committee under W. A. Baum (Mount Wilson and Palomar). The speakers included a number of astronomers (A. Lallemand, Baum, W. A. Hiltner, R. Morgan, R. Sturm, and A. Wilson) and representatives of the electronics industry (G. A. Morton and others).

The union accepted an invitation from the U.S.S.R. to meet in Moscow in 1958. All individual members of the IAU are included in this invitation. They will be the guests of the Soviet Academy of Sciences while they are on Russian soil. Members of their families will be expected to pay 400 rubles (\$150) per person, and their needs will be taken care of by the Soviet organization. J. J. Nassau (chairman of the U.S. delegation) extended an invitation to the union, on behalf of the State Department, to meet in this country (probably in Pasadena, Calif.) in 1961; D. H. Menzel, president of the American Astronomical Society, spoke on behalf of the society, the National Academy of Sciences, and the National Research Council.

The entire meeting was held in an atmosphere of genuine friendliness and cooperation. The union is deeply grateful to

the Soviet astronomers who presented all of their symposium papers in English or in French and once again demonstrated to the world not only their linguistic proficiency but also their desire to make the sessions as efficient as is possible. In her concluding remarks, Mrs. A. G. Massevich expressed the hope that by 1958 the Western astronomers would know enough Russian to remove the necessity of her reading so many English translations of Russian contributions. Can we meet this challenge?

Despite the all-pervading "spirit of Geneva," it would be unrealistic not to recognize that the ideological differences between the West and the East have not been reconciled. We have found a *modus vivendi*, and we have intentionally shoved into the background those very serious philosophic problems that divide us. The time has come to discuss them frankly and with respect for one another's views. Perhaps we can gradually reach a common understanding.

The local arrangements in Dublin were perfect. Professor and Mrs. H. A. Brück of the Dunsink Observatory and Professor and Mrs. T. Nevin of the physics department of University College had foreseen every detail. We were entertained by the President of Eire at a large garden party and by An Taoiseach (Prime Minister John Costello) at an evening reception in St. Patrick's Hall of Dublin Castle. The Prime Minister and Mr. Eamon de Valera spoke at the ceremonial opening of the congress on 29 August, and both were the guests of the union at the closing dinner on 5 Sept.

Two large receptions were arranged by the U.S. Ambassador, Mr. William Howard Taft, III, and Mrs. Taft, at the American Embassy, and by the Soviet delegation at the Hibernia Hotel (there is no Soviet embassy in Dublin). Most of the other embassies had smaller parties for their own nationals. The Archbishop of Dublin gave a small dinner for Baade, Woolley, and Struve. After the official close of the meeting many delegates traveled by train to Belfast where they were entertained by the Prime Minister of Northern Ireland and were given an opportunity to visit the Armagh Observatory.

OTTO STRUVE

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## Meeting Notes

■ The fall meeting of the American section of the International Scientific Radio Union (URSI) will take place at the University of Florida, 15–17 Dec. A combined technical session for all participants is scheduled for the morning of 15 Dec.; this will be followed by one or

more sessions in each of the following fields: commission 2, radio and troposphere; commission 3, ionospheric radio; commission 4, radio noise of terrestrial origin; and commission 5, radio astronomy.

Authors are invited to submit titles and 100 to 200 word abstracts *on or before 21 Oct. 1955*. The abstracts should be sent to the appropriate commission chairman or secretary: commission 2, Dr. J. B. Smyth, U.S. Naval Electronics Laboratory, San Diego 52, Calif.; commission 3, Dr. L. A. Manning, Electronics Research Laboratory, Stanford University; commission 4, Prof. A. W. Sullivan, University of Florida; commission 5, Mr. Fred T. Haddock, Naval Research Laboratory, Code 7130, Washington 25, D.C.

■ The third Buena Vista Conference on Biophysics was held at Hartford Manor, Valhalla, N.Y., 8–10 Sept. The conference, sponsored by the Yale University biophysics department and the John Hartford Foundation, was devoted to training and careers in biophysics.

Under the chairmanship of E. C. Polard, the meetings were attended by representatives of universities, industry, government, hospitals, and private research laboratories. Sessions were devoted to defining the field of biophysics, determining careers available in biophysics, graduate and undergraduate training, and problems of publications and communication.

■ The eighth annual conference on Electrical Techniques in Medicine and Biology, sponsored by the American Institute of Electrical Engineers and the Instrument Society of America, will be held 14–16 Nov. at the Shoreham Hotel, Washington, D.C. The purpose of the meeting is to provide liaison and better understanding among workers in electronic engineering, medical research, and related disciplines to advance the development and application of electric techniques in medicine and biology.

Fourteen papers will be presented on "Recent advances in angiocardiology," "Audiology and instrumentation for hearing," and "Instrumentation in medicine and biology." Chairmen of the three sessions are Theodore F. Hilbish, chief of the diagnostic radiology service, National Institutes of Health, Bethesda, Md.; Scott Reger of the department of otolaryngology, University of Iowa Hospital, Iowa City; and W. A. Wildhack, chief of the Office of Basic Instrumentation, National Bureau of Standards, Washington, D.C. The conference will include inspection trips to the National Institutes of Health, the Naval Medical Research Institute, and the National Bureau of Standards.

■ The American Psychosomatic Society will hold its annual meeting at the Sheraton Plaza Hotel in Boston, Mass., 24–25 Mar. 1956. The program committee would like to receive titles and abstracts of 20-min papers *no later than 1 Dec.* Abstracts should be submitted in sextuplicate to the committee chairman at 551 Madison Ave., New York 22.

## Society Elections

■ International Astronomical Union: pres., A. Danjon, Paris, France; past pres., Otto Struve, University of California, Berkeley; general sec., P. Th. Oosterhoff (Netherlands). The vice presidents are A. Couder (France), O. Heckmann (West Germany), B. V. Kukarkin (U.S.S.R.), E. Rybka (Poland), P. Swings (Belgium), and R. v.d. R. Woolley (Australia).

■ Illuminating Engineering Society: pres., R. F. Hartenstein, Ohio Edison Co.; general sec., George J. Taylor, Day-Brite Lighting, Inc., New York; treas., J. S. Schuchert, Duquesne Light Co., Pittsburgh, Pa. The vice presidents are M. N. Waterman, Westinghouse Electric Corp., Bloomfield, N.J., and Kirk M. Reid, General Electric Co., Nela Park, Cleveland, Ohio. Regional vice presidents are John G. Felton, Jr., Sylvania Electric Products, Inc., Dallas, Tex.; J. Dixon Mitchell, Westinghouse Lamp Division, Chamblee, Ga.; Joseph Thomas, Canadian General Electric Co., Ltd., Montreal, Canada; Nelson C. Warner, Westinghouse Electric Corp., Pittsburgh, Pa.; and J. D. Whitnell, Arizona Public Service Co., Phoenix, Ariz.

■ Botanical Society of America: pres., Harriet B. Creighton, Wellesley College; v. pres., William Randolph Taylor, University of Michigan; sec., Harold C. Bold, Vanderbilt University; treas., Harry J. Fuller, University of Illinois.

## Forthcoming Events

### November

14–16. Technical Conf. on Electrical Techniques in Medicine and Biology, 8th annual, Washington, D.C. (T. Rogers, Machlett Laboratories, 1063 Hope St., Springdale, Conn.)

14–17. International Automation Exposition, 2nd, Chicago, Ill. (R. Rimbach Assoc., 845 Ridge Ave., Pittsburgh 12, Pa.)

14–17. American Petroleum Inst., 35th annual, San Francisco, Calif. (API, 50 W. 50 St., New York 20.)

14–18. American Public Health Assoc., Kansas City, Mo. (R. M. Atwater, APHA, 1790 Broadway, New York 19.)

14–18. New England Inst. for Hospital Administrators, 7th, Boston, Mass. (D.



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Conley, ACHA, 620 N. Michigan Ave., Chicago 11, Ill.)

15-17. American Meteorological Soc., Honolulu, Hawaii. (K. C. Spengler, AMS, 3 Joy St., Boston 8, Mass.)

15-17. Geophysical Soc. of Hawaii, Honolulu. (L. Eber, Pineapple Research Inst., Honolulu.)

16-17. Industrial Hygiene Foundation, 20th annual, Pittsburgh, Pa. (C. R. Walmer, IHF, Mellon Inst., Pittsburgh.)

16-18. Soc. for Experimental Stress Analysis, Chicago, Ill. (W. M. Murray, SESA, Box 168, Cambridge 39, Mass.)

17-19. American Anthropological Assoc., Boston, Mass. (W. S. Godfrey, Jr., Logan Museum, Beloit College, Beloit, Wis.)

18-19. American Mathematical Soc., Knoxville, Tenn. (E. G. Begle, Yale Univ., New Haven 11, Conn.)

18-19. North Carolina Science Fair Work Conf., Greensboro. (D. E. Large, Science Fair Program, P.O. Box 117, Oak Ridge, Tenn.)

22-23. National Council of Geography Teachers, Indianapolis, Ind. (I. C. Robertson, State Teachers College, Valley City, N.D.)

22-25. International Cong. on Documentation of Applied Chemistry, 1st, London, Eng. (Cong. Committee, 56 Victoria St., London, S.W.1.)

25-26. American Mathematical Soc., Milwaukee, Wis. (E. G. Begle, Yale Univ., New Haven 11, Conn.)

25-26. American Physical Soc., Chi-

cago, Ill. (K. K. Darrow, Columbia Univ., New York 27.)

25-26. American Soc. of Animal Production, annual, Chicago, Ill. (W. M. Beeson, Animal Husbandry Dept., Cornell Univ., Ithaca, N.Y.)

27-30. American Inst. of Chemical Engineers, Detroit, Mich. (F. J. Van Antwerpen, AIChE, 25 W. 45 St., New York 36.)

28-1. White House Conf. on Education, Washington, D.C. (C. Pace, Director; Comm. for White House Conf. on Education; South Health, Education and Welfare Bldg.; Washington 25.)

29-2. American Medical Assoc., clinical, Boston, Mass. (G. F. Lull, AMA, 535 N. Dearborn St., Chicago 10, Ill.)

29-2. Entomological Soc. of America, Cincinnati, Ohio. (R. H. Nelson, 1530 P St., NW, Washington 5.)

#### December

2. American Alpine Club, annual, New York, N.Y. (J. C. Oberlin, 909 Leader Bldg., Cleveland 14, Ohio.)

2-3. American Federation for Clinical Research, Eastern, Philadelphia, Pa. (C. R. Shuman, Temple Univ. Hospital, Broad and Ontario Sts., Philadelphia 40, Pa.)

2-3. Oklahoma Acad. of Science, Norman. (D. E. Howell, Dept. of Entomology, Oklahoma A. & M. College, Stillwater.)

2-4. American Psychoanalytic Assoc., New York, N.Y. (J. N. McVeigh, 36 W. 44 St., New York 36.)

4. American Acad. of Dental Medicine, 10th mid-annual, New York, N.Y. (G. J. Witkin, 45 South Broadway, Yonkers 2, N.Y.)

8-10. Florida Acad. of Sciences, Miami. (R. A. Edwards, Geology Dept., Univ. of Florida, Gainesville.)

9-10. Assoc. for Research in Nervous and Mental Disease, 35th annual, New York, N.Y. (C. C. Hare, 710 W. 168 St., New York 32.)

9-10. Texas Acad. of Science, annual, Waco. (G. P. Parker, P.O. Box 7488, College Station, Texas.)

9-13. American Acad. of Optometry, Chicago, Ill. (C. C. Koch, 1502 Foshay Tower, Minneapolis 2, Minn.)

10-16. Nuclear Cong. and Atomic Exposition, Cleveland, Ohio. (A. F. Denham, 931 Book Bldg., Detroit 26, Mich.)

10-16. Radiological Soc. of North America, Inc., Chicago, Ill. (D. S. Childs, Sr., 713 East Genesee St., Syracuse 2, N.Y.)

11-14. American Soc. of Agricultural Engineers, Chicago, Ill. (F. B. Lanham, ASAE, St. Joseph, Mich.)

11-14. American Soc. of Refrigerating Engineers, New York, N.Y. (R. C. Cross, ASRE, 234 Fifth Ave., New York 1.)

15-17. Acoustical Soc. of America, Providence, R.I. (W. Waterfall, ASA, 57 E. 55 St., New York 22.)

16-21. Interamerican Cong. of Psychology, 3rd, Austin, Tex. (W. Holtzman, Univ. of Texas, Austin.)

(See 16 September issue for comprehensive list)