

For laboratory or field
research applications

MODEL 700/1400 SERIES NEW MAGNETIC TAPE RECORDING SYSTEMS



ACCURATE ± 0.2 linearity for analog data

FLEXIBLE as many data channels as you need from 2 to 14

COMPACT a 7-channel system fits in less than 2 ft. of rack space

LOW COST modest initial cost, true operating economy

MNEMOTRON NEW MODEL 700/1400 SERIES MAGNETIC TAPE RECORDING SYSTEMS record any electrical quantity from DC up to 5000 cps. A uniquely simple pulse-frequency modulation technique insures that data signal intelligence is free from non-linearity due to tape coating or other distortions.

Select as many data channels as you need, up to 14. Choose the tape format you want— $\frac{1}{4}$ ", $\frac{1}{2}$ " in-line, or standard IRIG. If standardization is desired, simply specify 7 channels on $\frac{1}{2}$ -inch tape in the standard IRIG configuration.

Record/Reproduce electronics for each channel are integrated in a single plug-in module featuring unity gain. An integral speed switch permits selection of data conversion for 2, 3 or 4 tape speeds — no additional plug-ins needed. For maximum flexibility, each multi-channel input is isolated. Data can be accepted from unbalanced, differential or push-pull outputs — or different DC levels on input signal ground returns can be preserved. Test points allow monitoring of input during recording, output voltage level when reproducing.

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AAAS Affiliate

American Academy of Arts and Science

"To cultivate every art and science which may tend to advance the interest, honor, dignity, and happiness of a free, independent and virtuous people."

This phrase summarizes the "end and design" of the American Academy of Arts and Sciences according to its Charter, granted by the Legislature of Massachusetts, on 4 May 1780. It is not surprising that such men as John and Samuel Adams, John Hancock, E. A. Holyoke, James Bowdoin, and Robert Treat Paine, even in the midst of the American Revolution, should organize a "public society" for such a purpose. These "men of genius and learning" were prominent in laying the philosophical and practical foundations of the new nation as well as in the development of natural and cultural history, mathematics, astronomy, navigation, meteorology, geography, agriculture, medicine, manufacturing, and commerce. They clearly perceived the vital relation of knowledge and its advancement to the welfare of the state and of all its citizens, individually as well as collectively. During the 19th century, other leaders of thought and action associated with the American Academy included William Barton Rogers, William C. Redfield, Louis Agassiz, Alexander D. Bache, Asa Gray, Joseph Henry, and John Torrey, all active in the founding of the American Association for the Advancement of Science.

The membership of the American Academy today (numbering some 1600 fellows and 250 foreign honorary members) represents, for the culture of the mid-20th century, a similar level and variety of talent. Fellows represent every field of intellectual activity; they come from all parts of the country. Most of the scientific fellows of the Academy are also fellows of the American Association for the Advancement of Science, and many of them today are as active in the Association as their counterparts were in its founding in the 1840's.

Nominations and elections to the Academy are made by its fellows. Statutory provisions specify that members and foreign honorary members shall be chosen from among those "who are eminent for their discoveries or other attainments in any of the Classes." The

Classes are designated as follows: class I, mathematical and physical sciences; class II, biological sciences; class III, social arts and sciences; and class IV, humanities.

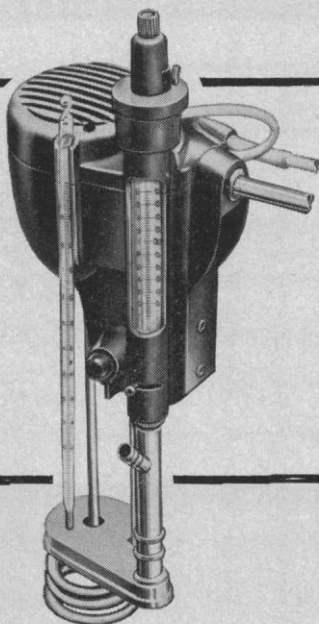
Almost alone among the learned societies of this or any other country, the American Academy of Arts and Sciences has not become departmentalized. It does not hold separate meetings for the several branches of learning, nor does it publish its proceedings in separate series. The policy of the Academy is based on the conviction that fruitful interaction among the branches of learning and the integration of their total meaning for human understanding and human wisdom, rather than only the advancement of the separate disciplines is the increasingly acute need of our culture.

In a broad sense, the program of the Academy today is to bring together, in conferences and study groups, men from many fields of learning to investigate vital contemporary problems, and to disseminate the results of these investigations through publication. For example, these have included studies or conferences which have resulted in the following publications: *The Sun in the Service of Man*; *Totalitarianism*; *Science in the Federal Government*; *Science and the Modern World View*; *Evolution and Man's Progress*; *Myth and Mythmaking*; and *Arms Control, Disarmament, and National Security*. Results from some of these conferences are communicated to a wider audience through *Daedalus*, the quarterly journal of the Academy. Each issue embodies a survey of a particular problem of our civilization. It has a circulation of over 20,000 to leading persons in the arts, sciences, and practical affairs, including several thousand members of the Association.

The Academy continues long-standing programs supporting and rewarding scientific and scholarly research and the creative work of the arts within the already established disciplines. This is done through its several funds for research, awards, and prizes, administered by committees of experts in these various disciplines, and is independent of the pressures of political opinion or immediate practical or financial return.

The "stated meetings" of the Academy are held on the second Wednesday of each month from October to May, inclusive. At these meetings, the fellows and their guests listen to more or less formal "communications," some-

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times in fairly specialized fields of learning, but more often of broad and general interest.

Officers elected in May of 1962 for one year were: president, Hudson Hoagland; vice president of class I, Donald H. Menzel; vice president of class II, Frank M. Carpenter; vice president of class III, Francis Keppel; vice president of class IV, Crane Brinton; secretary, John R. Raper; treasurer, Thomas B. Adams; editor, Gerald Holton; and librarian, Walter M. Whitehill.

RALPH W. BURHOE
American Academy of Arts and Sciences, Boston, Massachusetts

Forthcoming Events

April

17-20. American Astronomical Soc., meeting, Tucson, Ariz. (P. M. Routly, 265 Fitz Randolph Rd., Princeton, N.J.)

17-20. American Geophysical Union, annual, Washington, D.C. (AGU, 1515 Massachusetts Ave., NW, Washington 5, D.C.)

17-20. German Soc. of Surgery, 80th meeting, Munich. (E. Derra, Chirurgische Klinik der Medizinischen Akademie, Moorenstr. 5, Düsseldorf, Germany)

17-21. Man, Technology, and Medicine in Nuclear and Space Age, 3rd intern. congr., Rome, Italy. (A. J. Shneiderov, 1945 Calvert St., NW, No. 44, Washington 9)

18. Society of Plastics Engineers, regional technical conf., Syracuse, N.Y. (R. R. Collis, c/o Joseph Cashier & Co., Inc., 810 E. Water St., Syracuse)

18-20. Neurosurgery, 2nd European congr., Rome, Italy. (B. Guidetti, Viale Università 30, Rome)

18-20. Stereology, 1st intern. congr., Vienna, Austria. (Vienna Medical Acad., Alserstrasse 4, Vienna 9)

18-21. Radiology in Otolaryngology, intern. symp., Bordeaux, France. (G. Guilen, 45, cours du Marechal Foch, Bordeaux)

20. New Jersey Acad. of Science, annual, Glassboro, N.J. (H. L. Silverman, 361 Highland Ave., Newark 4, N.J.)

21-24. Rare Earth, conf., Grand Bahama Island. (K. S. Vorres, Dept. of Chemistry, Purdue Univ., Lafayette, Ind.)

21-25. International College of Surgeons, North American Federation, annual, Los Angeles, Calif. (W. F. James, 1516 Lake Shore Dr., Chicago 10, Ill.)

22-24. Institute of the Aerospace Sciences, Dallas, Tex. (R. R. Dexter, 2 E. 64 St., New York 21)

22-24. American Oil Chemist Soc., Toronto, Ont., Canada. (K. F. Matil, Swift & Co., Packers and Exchange Ave., Chicago 9, Ill.)

22-24. Biomedical Engineering, 3rd symp., San Diego, Calif. (J. H. McLeod, Program Committee, 8484 La Jolla Shores Dr., La Jolla, Calif.)

22-25. American Physical Soc., Wash-

LOW-LEVEL IRRADIATION

Editor: Austin M. Brues

A symposium organized by the AAAS Section on Zoological Sciences, cosponsored by the U.S. Atomic Energy Commission and the Division of Biological and Medical Research of the Argonne National Laboratory.

Public debate on global fallout has been acrimonious because scientific facts about radiation and human implications regarding nuclear warfare have become confused. Scientists have consequently been thought guilty of ignorance or of partisanship. The Symposium on Low-Level Irradiation deals in a considered way with the many points of view that have brought this about and indicates possible solutions.

Scientific Background: Introduction—National and Artificial Radiation Background of Man—Meteorological Factors and Fallout Distribution—Genetic Effects—Somatic Effects

Implications: Introduction—Radiation as a Public Health Problem—Responsibilities of the Press—Legal and Political Implications—Science and Morality

Summary and Conclusions—Index

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