conf., Vineland, N.J. (J. D. Eadline, Training School, Vineland, N.J.)

11-13. Instrumentation and Computation in Process Development and Plant Design, symp., London, England. (Institute of Chemical Engineers, 16, Belgrave Sq., London, S.W.1.)

11-13. Microwave Theory and Techniques, natl. symp., Boston, Mass. (H. Pratt, Inst. of Radio Engineers, 1 E. 79 St., New York 21.)

11-13. Power Instrumentation, natl. symp., Kansas City, Mo. (H. H. Johnson, Consolidated Edison Co. of New York, Room 1515-S, 4 Irving Pl., New York 3.)

13. New Orleans Acad. of Sciences, an-

nual, New Orleans, La. (J. J. Creely, U.S. Dept. of Agriculture, 1100 Robert E. Lee Blvd., New Orleans, La.)

13-16. Human Biochemical Genetics, Ciba Foundation symp., London England. (G. E. W. Wolstenholme, Ciba Foundation, 41 Portland Pl., London, W.1.)

14-15. Operations Research Soc. of America, Washington, D.C. (H. J. Miser, Rt. 2, Box 211, Vienna, Va.)

14-16. Acoustical Soc. of America, Ottawa, Canada. (W. Waterfall, 335 E. 45 St., New York 17.)

14-17. American Acad. of Dental Medicine, 13th annual, Atlantic City, N.J. (H. A. Lentz, 619 Main Ave., Passaic, N.J.)

14-16. American Assoc. of Physical Anthropologists, Madison, Wis. (E. E. Hunt, Jr., Peabody Museum, Harvard Univ., Cambridge 38, Mass.)

17-20. American Inst. of Chemical Engineers, 40th natl., Kansas City, Mo. (F. J. Van Antwerpen, AICE, 25 W. 45 St.,

New York 36.)

17-21. American Ceramic Soc., 61st annual, Chicago, Ill. (C. S. Pearce, ACS, 4055 N. High St., Columbus 14, Ohio.)

17-21. Institute of Food Technologists, 19th annual, Philadelphia, Pa. (C. S. Lawrence, IFT, 176 W. Adams St., Chicago 3, Ill.)

17–23. Antibiotics, intern. symp., Prague, Czechoslovakia. (M. Heřmanský, Antibiotics Research Inst., Roztoky near Prague, Czechoslovakia.)

17-23. Mass Spectrometry, 7th, Los Angeles, Calif. (A. G. Sharkey, Jr., U.S. Bureau of Mines, 4800 Forbes Ave., Pittsburgh 13, Pa.)

18-20. Instrumental Methods of Analysis, 5th natl. symp., Houston, Tex. (H. S. Kindler, Director of Technical and Educational Services, ISA, 313 Sixth Ave., Pittsburgh 22, Pa.)

19-23. American Assoc. of Mental Deficiency, Milwaukee, Wis. (N. A. Dayton, Mansfield State Training School & Hospital, Mansfield Depot, Conn.) 20-22. Education of the Scientist in a

Free Society, conf., Milwaukee, Wis. (A. B. Drought, College of Engineering, Marquette Univ., 1515 W. Wisconsin Ave., Milwaukee 3.)

21-23. American Assoc. for the History of Medicine, 32nd annual, Cleveland, Ohio. (Miss E. H. Thomson, Yale Univ. School of Medicine, New Haven, Conn.)

21-27. Veterinary Cong., 16th intern., Madrid, Spain. (J. Jensen, General Secretary of Permanent Committee, Belstraat 168, Utrecht, Netherlands; or W. A. Hagan, Dean, Cornell Univ., New York State Veterinary College, Ithaca, N.Y.)

24-27. Chemical Inst. of Canada, 42nd annual conf., Halifax, Nova Scotia. (Chemical Inst. of Canada, 18 Rideau St., Ottawa 2, Ontario.)

24-29. American Tuberculosis Assoc., Chicago, Ill. (Mrs. W. B. White, 1790 Broadway, New York 19.)

24-29. Social Welfare, natl. conf. and annual forum, San Francisco, Calif. (National Conference on Social Welfare, 22 W. Gay St., Columbus 15, Ohio.)

25-27. American Gynecological Soc., Hot Springs, Va. (A. A. Marchetti, 3800 Reservoir Rd., NW, Washington 7.)

25-27. American Soc. for Quality Control, Cleveland, Ohio. (L. S. Eichelberger, A. O. Smith Corp., Milwaukee, Wis.)

25-27. Chemical Inst. of Canada, 42nd annual conf., Halifax, Nova Scotia. (Chemical Inst. of Canada, 18 Rideau St., Ottawa, Ontario, Canada.)

25-27. Telemetering, natl. conf., Denver, Colo. (R. Schmidt, AVCO Mfg. Co., 201 Lowell St., Wilmington, Mass.)

25-28. Smoking and Lung Cancer, and Pulmonary Emphysema, symps., American Trudeau Soc., Chicago, Ill. (H. W. Harris, Medical Sessions Committee, ATS, 1790 Broadway, New York 19.)

26-29. American College of Cardiology, Philadelphia, Pa. (P. Reichert, 480 Park Ave., New York 22.)

(See issue of 20 March for comprehensive list)





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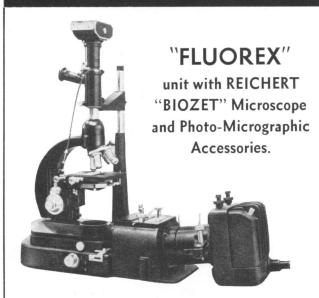
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Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable, and it reflects the claims of the manufacturer or other source. Neither Science nor the writer assumes responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 982.

- DIFFERENTIAL TRANSFORMER with large diameter is designed for applications in which the core must be separated from the coil by a glass or other nonmagnetic tube. The transformer has a linear range of 1 in. in either direction from null position. Deviation from linearity is less than 1 percent over the full range. (Schaevitz Engineering, Dept. 725)
- DIGITAL SUBTRACTOR-CONVERTER accepts two digital input signals, subtracts one from the other digitally, and presents an analog output signal proportional to the difference. Input signals are accepted at pulse rates up to 250 kcy/sec in blocks occurring at 1/30 sec intervals. Each block may contain up to 4095 pulses. Output voltage is ±50 mv for a ±1 count difference and up to ±10 v for a ±200 count difference. Output accuracy is ±2 percent or 10 mv, whichever is greater. (Computer Equipment Corp., Dept. 727)
- POTENTIOMETER CHECKER consists of a ten-turn master potentiometer mechanism for coupling the potentiometer under test, a recorder, drive mechanisms and trimming adjustments for zeroing and error, and a calibration source. The master-potentiometer output voltage is a linear function of test-potentiometer shaft rotation with accuracy ranging from 0.01 percent for the one-turn output shaft to 0.003 percent for the 15-turn output shaft. (Analog Controls, Inc., Dept. 734)
- AMPLIFIERS for oscillograph recorders drift less than 0.5 mv equivalent input per hour and will operate from 115v ± 5v power lines without additional regulation. Input impedance is 2 megohm. Frequency compensation for galvanometer characteristics is designed for plug in. Automatic signal overload protection prevents galvanometer burnout. (Epsco, Inc., Dept. 723)
- VACUUM PUMPING SYSTEM is a 3-in. system with a separate roughing line for initial evacuation of the bell jar. Pumping time to 10^{-5} mm-Hg is 20 min. Ultimate pressure is 5×10^{-6} mm-Hg. Ionization and thermocouple gages measure vacuum. (Bon-De Electronic Laboratories, Inc., Dept. 731)

- DIGITAL RECORDER is a self-balancing, null-type indicator recorder for full scale of 0 to 100 mv. Minimum printing cycle is 3 sec, and full-scale response time is 3 sec. Accuracy is ±0.5 percent. (Research Appliance Co., Dept. 729)
- POWER-DENSITY METER measures power density of high-level microwave fields. The meter reads directly from 1 to 20 mw/cm² with accuracy of −0, +2 db. Three standard types cover the frequency ranges 2700 to 3300, 5200 to 5900, and 8500 to 9600 Mcy/sec. The meters are battery-operated and self-calibrating. Total weight is 6 lb, including batteries. (Sperry Microwave Electronics Co., Dept. 732)
- Phase Meter for the frequency range from 15 to 500 Mcy/sec consists of a phase-indicator unit and a time-delay unit. The former indicates when input signals are in phase or 180 deg out of phase. Minimum input signal is 1 v r.m.s. with panel meter or 20 µv with external receiver detector. Accuracy is ± 0.05 deg or ± 1 percent up to 200 Mcy/sec and ± 2 percent at 500 Mcy/sec. (AD-YU Electronics Laboratory, Inc., Dept. 733)

 JOSHUA STERN

National Bureau of Standards, Washington, D.C.





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NASA directs and implements the Nation's research efforts in aeronautics and the exploration of space for peaceful purposes and the benefit of all mankind. We offer unique opportunities in basic and applied research to scientists and engineers with degrees in the various disciplines.

Briefly described here are representative current NASA programs. Openings exist in all of these programs, at the facilities named.

SPACE TECHNOLOGY

Space vehicle development, including basic planning, development, contract coordination, and operational programming and planning for manned and unmanned satellites. Systems studies for auxiliary power supplies, air regenerative systems, instruments, guidance and communication equipment for space vehicles.

Space probes: Development and operation of vehicles, payload and instrumentation, programming and operation of flight, trajectory, communication systems, and ground support systems for near space and deep space probes.

Beltsville

SPACE MECHANICS

Experimental and analytical study of orbital mechanics including parameters of preliminary and refined orbits. ephemerides, lifetimes, equator crossings and perturba-

Beltsville; Langley; Ames

PROPULSION AND PROPULSION **SYSTEMS**

Developmental studies of boosters, launchers, multi-stage engines, guidance and attitude control systems for space

Basic research on the interrelationships between electrical, magnetic and thermodynamic energy, and appli-

cation of such knowledge to space propulsion.

Magneto hydrodynamics: Research on plasma and ion accelerators for space propulsion and auxiliary power

Research on reactors and reactor shielding for aeronautical and space propulsion systems.

Beltsville; Lewis

AERODYNAMICS AND FLUID MECHANICS

Investigation of the thermodynamics and transport properties of gases at high temperatures as encountered in entry into planetary atmosphere.

Research on performance, stability and control, automatic guidance, and navigation for subsonic, supersonic, and hypersonic aircraft.

Aerodynamic heating and satellite re-entry phenomena.

Langley; Ames; Lewis; High-Speed Flight Station

(Positions are filled in accordance with Aeronautical Research Announcement 61B)

INSTRUMENTATION AND COMMUNICATION

Research and development of new sensing devices and instrumentation techniques in electronics, optics, aerodynamics, mechanics, chemistry and atomic physics.

Systems studies and evaluation of control, guidance, navigation, and communication equipment for space vehicles and other high performance applications requiring rugged and compact design.

All Facilities

GEOPHYSICS, ASTRONOMY AND ASTROPHYSICS

Experimental programs and evaluation studies of astronomical and geophysical measurement and scientific equipment used in space vehicle payloads.

Studies of fields and particles in space, investigations of the composition of planetary atmospheres, and development of instrumentation and experimental techniques for these investigations.

STRUCTURES AND MATERIALS

Investigation of the characteristics of high temperature structures and materials. Study of fatigue, structural stability, and other problems of structural dynamics.

Solid State Physics: Study of the elementary physical

processes involved in mechanical behavior of materials, such as fractures; the nature of the corrosion process; and physical-chemical relationships governing behavior of materials.

Langley; Ames; Lewis

MATHEMATICS

Application of advanced mathematical techniques to the solution of theoretical problems in aeronautical and space research, involving the use of large modern computing equipment.

All Facilities

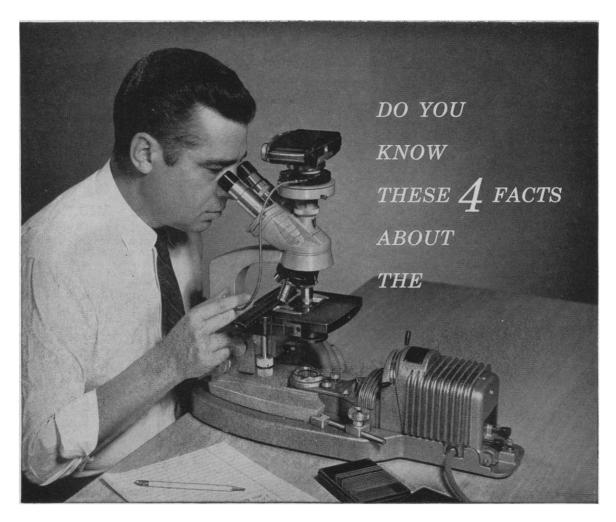
RESEARCH FACILITY **ENGINEERING**

Translation of research specifications into complete experimental facilities, involving mechanical, electrical, structural, architectural and machine design, and construction engineering.

Langley; Ames; Lewis

Please address your inquiry concerning any of the programs listed here to the Personnel Director of the appropriate NASA research center:

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