

Symposium on Manned Space Stations to be held April 20-22, 1960, at the Ambassador Hotel in Los Angeles. The National Aeronautics and Space Administration and the RAND Corporation are cosponsors.

Two general sessions have been scheduled for April 20. "Current Status" will take up the morning and explore preliminary steps now in progress, summarize the state of the art, and indicate reasons why a space station is desirable. In the afternoon, "Space Station Design Concepts" will include descriptions of several complete space station systems and will conclude with a paper on over-all cost considerations.

Three all-day sessions will be held simultaneously on April 21. These will be "Orbital Rendezvous and Guidance", including the specific topics of requirements on launch times and accuracies, effect of initial errors, effect of orbit perturbations, correction of gross errors through orbit transfer, fine terminal maneuvers, ground tracking and communication requirements, vehicle-to-vehicle communication, homing devices, and emergency systems; "Human Factors", including the topics of requirements for a tolerable human environment, open and closed ecologies, space hazards, provision for air, food, water, heat balance and sanitation, considerations of radiation, weightlessness, crew selection, and instrumentation; and "Structures", which will consider structural problems peculiar to space stations, assembly and joining techniques, design against meteoric damage and explosive failure, damping, special lightweight structures, vacuum effects, and vehicle thermal control.

Simultaneous sessions on "Attitude Control, Sensing, and Stabilization" and on "Power Supplies" will be held on the morning of April 22. The former will survey stability requirements and techniques for sensing and controlling the orientation of incoming vehicles as well as of the station itself. The last named session will provide a description of the power requirements of a space station, and will present information on the current status of complete lightweight nuclear and solar power sources, including those systems utilizing advanced conversion techniques.

While part of the program will consist of invited addresses, the balance will be made up of contributed papers. Those wishing to submit papers or obtain further information should contact one of the cochairmen, Dr. J. H. Huth or Dr. E. Levin, at The RAND Corporation, 1700 Main Street, Santa Monica, Calif.

#### *Inter-Society Color Council*

**T**HE Inter-Society Color Council will hold its 29th Annual Meeting on April 11-12, 1960, at the Philadelphia Museum College of Art, Philadelphia, Pa. The color problems subcommittees will convene on April 11. During the morning of April 12 the annual business meeting will be held, and the afternoon of the same day will be devoted to a Symposium on Creative Color. Further information on the meeting may be obtained from the Council's secretary, Ralph M. Evans, Color Technology Division, Building 65, Eastman Kodak Company, Rochester, N. Y.

**Inertial  
Guidance  
Gyros?**

**New  
MITAC  
Gyroscopes!**



From Cenco—developed by MIT and the AC Spark Plug Div. of General Motors. For visual demonstration of gyroscopic principles—inertia, precession, nutation, single and two degrees of freedom gyro, automatic pilot or inertial guidance, gyro compass, laws of motion. Motor driven. Complete with built-in turn table and handbook of experiments and theory.

No. 74730 Deluxe Research Model \$254.00



#### **CENTRAL SCIENTIFIC CO.**

A Subsidiary of Cenco Instruments Corporation  
1718-B Irving Park Road • Chicago 13, Illinois  
Branches and Warehouses—Mountainside, N. J.  
Boston • Birmingham • Santa Clara • Los Angeles • Tulsa  
Houston • Toronto • Montreal • Vancouver • Ottawa

## **RESEARCH ENGINEERS Explosives**

ARMOUR RESEARCH FOUNDATION has a limited number of positions open in explosives research for individuals with imagination and ingenuity. This is an opportunity to work in small project groups.

Projects are in the areas of Sensitivity Output, Warhead Design and Evaluation, Fuzes, and Explosives Forming Techniques. Men with degrees in Physics, Mechanical Engineering, or Electrical Engineering and an interest or experience in this field are invited to apply.

Excellent employee benefits including liberal vacation plan and tuition free graduate study. Please send resume to:

**E. P. Bloch**

**ARMOUR RESEARCH FOUNDATION  
of**

**Illinois Institute of Technology**

**10 West 35th Street  
Chicago 16, Illinois**