

with built-in metal cabinets, closets, and shelves. Even the color schemes of the enamel surfaces were tested for reactions of scientists using those offices. . . . The Center also has a parking lot for 1000 automobiles, a cafeteria with laminated teak and white maple tables, and in the lobby the receptionist's desk is "a massive ten-foot block" finished in black slate.

Work in the Watson Research Center will include a variety of investigations in physics, chemistry, mathematics, and engineering ranging from basic studies of magnetic, low-temperature, and solid-state phenomena to the design and development of experimental computing machines and of new data-handling systems.

Armour Research Foundation of Illinois Institute of Technology was established in 1936 in a few basement rooms on the Illinois Tech campus in Chicago. It now occupies a group of seven buildings which are part of the school's Technology Center and has a staff of more than 1200 working in nine research divisions. Among the events scheduled as part of a year-long 25th anniversary celebration which is currently being observed will be dedication ceremonies for a new \$3.5 million chemistry research building and a \$1.2 million extension to ARF's existing mechanics research building.

A \$2.5 million research building will be added to the Franklin Institute in Philadelphia on a site adjacent to the Institute's main building. The new six-story structure is to house greatly increased laboratory facilities and will enable the Institute, which now employs 350 scientists and technicians, to expand its personnel and research activities. Completion is expected in late 1962.

Southern Methodist University has received a National Science Foundation grant of \$26 400 to study the feasibility of transforming the new Science Information Center at SMU into a regional scientific and technical information office serving industry and higher education in the Southwest. The building to house the new center, a million-dollar, 80 000-square-foot structure with space for a half-million volumes, is scheduled for completion next August and will serve the SMU faculty and student body as well as the Graduate Research Center.

Communication Satellites

Ground stations for two National Aeronautics and Space Administration satellite projects designed to test basic concepts and technological approaches employed in satellite communications systems will be provided by the British General Post Office and the French Center for Telecommunications Studies, according to a joint announcement made in April by the three cooperating agencies. The stations will be used to transmit multi-channel telephone, telegraph, and television signals across the Atlantic with the help of active and passive satellites which are scheduled to be launched by NASA

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PhD Physical Optics with 5 years experience.

OPTICAL & IR TRACKING DEVICES.
MS Solid State with 10 years experience.

THIN FILM TECHNIQUES.
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► For further information about assignments in above and other areas, please write in fullest confidence to Mr. George R. Hickman, Technical Employment Manager, Dept. 16P.



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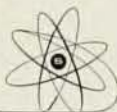
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Reply in confidence to:

Dr. C. F. Squire

Director of Research

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UNITED AIRCRAFT CORPORATION

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in 1962 and 1963. Surveys are underway to determine favorable locations for the high-frequency, low-power installations, each of which will be designed to have extremely accurate tracking and antenna-pointing capabilities.

Project Relay, the first part of the cooperative program, will involve a low-altitude, active repeater satellite weighing less than 100 pounds, which is to be launched next year. In addition to its communication equipment, the Relay satellite will carry instrumentation for detection of radiation damage and other environmental effects on components.

In Project Rebound, the second stage of the program, several inflated spheres will be placed in orbit from a single launching vehicle. Project Rebound will represent a continuation of NASA's passive-reflector program Echo, and is scheduled to launch its first three spheres in 1963. The cooperating agencies of the three nations have announced that they will welcome participation in the program by other countries desiring to provide additional ground facilities for the experiments.

Laboratories and Equipment

The central facility of the new Space Radiation Laboratory at Northrop Corporation's Norair Division in Hawthorne, Calif., will be a General Atomic Triga Mark-F "pulsing" reactor, which is scheduled for completion by early next year. The reactor will be capable of being pulsed to peak power levels of about 1.2 million kilowatts for fractions of a second at repeated intervals and will be used to study the behavior of vehicle components, materials, and electronic subsystems exposed to intensive bursts of neutrons and gamma radiation. An oversized pool of demineralized water surrounding the reactor core will permit immersing capsules containing full-size missile and space-vehicle components for exposure to radiation. Other studies will be conducted in a dry exposure room to be constructed adjacent to the reactor pool. Operating at its steady-state energy level of 100 thermal kilowatts, the reactor will also be used for neutron-physics research and for the production of radioisotopes.

A new radiotelescope intended for the study of radiations from the planet Jupiter has been constructed at Yale University's Bethany Observatory. Consisting of two grids, each 110 feet high, 110 feet wide, and 200 feet long, it will be used to observe 108 simultaneous frequency channels—eight times as many as are covered by the university's present equipment. Monitoring connections also bring in Jovian signals received by stations at Pomfret School and Wesleyan University in Connecticut, and by a radio station on the Yale campus ten miles away. Financed by grants from the Research Corporation, the National Science Foundation, and the National Aeronautics and Space Administration, the new telescope is manned, maintained, and was partially built by several dozen Yale