

radiated by the spacecraft under test, and the remainder will be removed by the diffusion pumps of the vacuum system.

A solid niobium ball, less than two inches in diameter and weighing $3\frac{1}{2}$ ounces, is being fabricated to within 10^{-4} inches of perfect sphericity at the General Electric Laboratories in Schenectady, N. Y. To be used as a critical part of an inertial guidance system to direct either spacecraft or earthbound vehicles, the sphere will be suspended in a vacuum by means of a magnetic field at superconducting temperatures, thus providing a near-frictionless gyroscope. Once set in motion, it is expected to rotate freely for months, and possibly for years.

Accelerators

Responsibility for accelerator development carried out by the United Kingdom Atomic Energy Authority, which has in the past been centered in the Accelerator Division of the Atomic Energy Research Establishment at Harwell, has been transferred to the neighboring Rutherford High-Energy Laboratory of Britain's National Institute for Research in Nuclear Science. The Institute was created in 1957 as an independent agency for constructing and operating costly high-energy research equipment for the use of nuclear scientists from British universities.

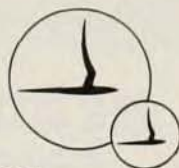
The majority of the AERE staff members engaged in accelerator design and development have moved to the Institute's Rutherford Laboratory, and L. B. Mullett, formerly head of the AERE Accelerator Division, has joined the Rutherford Laboratory as assistant director for accelerator and applied physics. NIMROD, the 7-Bev proton synchrotron which is nearing completion in the Rutherford Laboratory, was the National Institute's first project, while the AERE's 50-Mev proton linear accelerator was transferred to the Institute after being commissioned and is now available to universities for nuclear physics research.

Berkeley Radiotelescope

A new, ten-foot radiotelescope designed for observations at much shorter wavelengths than those previously in operation has been installed on the roof of Cory Hall on the University of California campus at Berkeley. Donated by the Office of Naval Research and constructed at the Norfolk Naval Shipyard, Portsmouth, Va., the new antenna will be operated (with ONR support) under the supervision of Samuel Silver, director of the University's Space Sciences Laboratory, and William J. Welch, assistant professor of electrical engineering.

The ten-foot dish will observe signals in the 4-8-millimeter range, in contrast to the 10-20-centimeter waves favored by the larger telescopes. Its beam width (between one and two tenths of a degree, attainable in the 10-20-cm region only by a dish several

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