



PROPOSED RADIO TELESCOPE—An artist's sketch of the giant radio "dish" planned to scan the heavens from Australia for cosmic noises constantly being received on earth from the heavens.

RADIO ASTRONOMY

Plan New Radio Telescope

Plans are announced for the erection in Australia of a giant radio telescope to explore, in the radio wave region, the stars visible from the Southern Hemisphere.

► **INTERNATIONAL COOPERATION** and the new science of radio astronomy are both seen aided by a \$250,000 grant from the Carnegie Corporation of New York to build a giant radio telescope in Australia. The award, announced by Dr. Vannevar Bush, president of the Carnegie Institution of Washington and a trustee of the Carnegie Corporation, will be administered by the Commonwealth Scientific and Industrial Organization in Australia.

It will provide part of the costs of constructing a giant radio wave "dish," 250 feet in diameter and about 60 feet deep. The radio telescope will take about three years to build and to mount so that it can be tilted or rotated in any direction in order to aim it at a particular section of the sky.

The receiving antenna was designed by the Radiophysics Laboratory of Australia's CSIRO, Sydney, which is directed by Dr. E. G. Bowen, a British-born physicist of international reputation. His chief assistant is Dr. J. L. Pawsey.

Some of the most significant recent work in radio astronomy has been done by the Australian group, Dr. Bush stated when announcing the grant.

"Their achievements in this field stand as one of the most constructive and fruitful

activities in science which has developed, to my knowledge, since World War II," Dr. Bush said.

The grant represents a wise investment in "international relations as well as in science," Dr. Bush pointed out. Radio astronomy research in Australia, he said, exhibits all the elements for a vigorous and imaginative program—outstanding leadership from Dr. Bowen, an enthusiastic group of experienced young investigators, and a clear indication that the new "dish" is an essential for the next big advances in the field.

Developments in radio astronomy date back to the early 30's when it was discovered that radio waves originating beyond our solar system can be detected on earth. As a result of intensive world-wide research, mostly since the war, such radio waves are now used to study a broad range of astronomical phenomena, including the sun, the moon, the Milky Way and remote galaxies in outer space.

With the proposed radio telescope, scientists can explore the heavens from the Southern Hemisphere, particularly the Magellanic Clouds, complementing radio wave observations at Manchester, England.

Science News Letter, August 7, 1954

GENERAL SCIENCE

Standards Bureau Moves Radio Branch to Colorado

► **THE NATIONAL** Bureau of Standards is moving its radio propagation division to Boulder, Colo., from Washington. The Rocky Mountains and wide, wind-swept plains offer better "laboratory" conditions.

About 217 acres of land were donated to the Bureau by Boulder citizens and civic groups. A new \$4,000,000 building, which will house the radio laboratories, was completed in May. It was especially designed for research in radio wave propagation and radio standards.

Most of the scientists who will work in the transplanted Central Radio Propagation Laboratory already have moved, including Dr. Frederick W. Brown who heads the new facilities. The rest of the personnel will follow by early September.

The move was found necessary because radio research scientists needed a location near mountains, plains and the ocean. Several sites were considered, and the Boulder area, which offered plains and mountains, was chosen as a compromise. Climate and wind also played a role in the selection of the Colorado spot.

Washington will retain radio station WWV. To be administered from Boulder headquarters, the station broadcasts standard time and frequency signals to the East Coast and ships in the Atlantic Ocean. Its counterpart in Hawaii, station WWVH, blankets the Pacific and West Coast.

Some current radio research experiments will continue in Washington, as will the North Atlantic radio warning service and some classified research.

The Bureau already has a cryogenics laboratory, for experiments at temperatures near absolute zero, at Boulder.

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