

ASTRONOMY

Telescope Will Orbit

Two projects in the NASA program for future space-based astronomy are an "X"-shaped radio astronomy satellite and a manned orbiting telescope—By Ann Ewing

► THE NATIONAL Aeronautics and Space Administration, looking 10 to 20 years into the future, is starting now to plan for a manned orbiting telescope.

Despite its name, the man's job will be to tend the telescope, not to look through it. The reason is that a man's slightest movement would jiggle a space-based telescope, throwing its precise aim out of kilter.

The man will have at least four specific jobs. The first will be to make final adjustments to the telescope, expected now to be 100 inches, one-half the size of the world's largest, the 200-inch atop Mt. Palomar.

Two of the other jobs will be to collect photographic plates taken with the telescope and to make repairs. Because a 100-inch eye in the sky would be an extremely versatile instrument, another job will be to change

the auxiliary equipment so that different kinds of information will be obtained.

This was one of the glimpses of the future revealed in Washington by Dr. Nancy Roman, chief of astronomy programs for NASA's office of space science and applications.

Dr. Roman also revealed plans to orbit, hopefully by 1967, a radio astronomy satellite that would listen for radio waves from space objects whose reception on earth is made either difficult or impossible by earth's ionosphere. To avoid ionospheric interference, the satellite would orbit some 6,000 miles away.

The proposed satellite would have four arms forming a giant "X." Each arm would be at least 750 feet long. If the problems of bending due to the very slight gravitational attraction at that altitude and also the de-

formation caused by the sun's heat can be licked, the arms will be a thousand feet long.

Dr. Roman said that earth-based and space-based astronomy are not rivals but partners. Some studies of the universe can be done more easily on the ground, but others can be done only when earth's hindering atmosphere does not interfere.

If there is life anywhere else in the sun's system of planets, Mars is the best place to look for it, Dr. Roman believes. She said that NASA's plans for planetary exploration would be outlined at a future news conference.

NASA has been charged with failing to push its plans to land a capsule on Mars as early as possible, to test for the presence of life forms.

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SPACE

Long Silent IMP Satellite Regains Its Voice

► THE IMP I SATELLITE, which has been silent in the sky for more than three months, has regained its voice.

The satellite, which had been silent because of low power levels, has been spouting back space information since Sept. 17. National Aeronautics and Space Administration officials report that the IMP I reached a more favorable sun angle and was able to operate on power directly from its four solar panels.

The IMP I, which was launched late last November, has sent back more than 120 hours of data since finding its voice.

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GENERAL SCIENCE

October Is National Science Youth Month

► THOUSANDS of local science students and their teachers are beginning classes on science studies, and out-of-school science activities, during October, which is National Science Youth Month.

President Lyndon B. Johnson's endorsement of October as Science Youth Month appears on this page.

Many of the professional and technical societies will devote one meeting this month for aiding the Science Youth program. Parent-teachers associations will also accent the part that adults play in aiding science club and science fair projects and hobbies in the field of science.

In the schools themselves, alert teachers are reorganizing their science clubs. Each teacher who forms a group or class for science study has the opportunity of affiliating with Science Clubs of America, a national organization of over three-quarters of a million students and some 25,000 teachers, conducted by SCIENCE SERVICE.

Affiliation results in receiving a large packet of "know-how" information, without charge. Any teacher or other adult organizing science youth will be affiliated upon request to SCIENCE SERVICE, 1719 N St., N.W., Washington, D.C. 20036.

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THE WHITE HOUSE
WASHINGTON

September 25, 1964

Every aspect of our lives is increasingly influenced by science. It is therefore vital that we encourage our youth in the development of their scientific talents, since our great nation can achieve its full potential only when all its inhabitants achieve their full potential.

Fifty-five national scientific, educational, industrial and governmental groups have joined in observing this October as National Science Youth Month. By spotlighting the opportunities in scientific careers, by arousing interest in scientific groups and activities, we can be assured of a bright future in which science is destined to play an ever larger role. Observance of October 1964 as the ninth annual National Science Youth Month will help to achieve this goal.

