



Picture Story No. 716

PEACEFUL SPACE EXPLORATION -- U.S. PROGRESS AND PLANS

Part III - "Research and Development"

During its short lifetime, the United States space program has accelerated rapidly to keep pace with man's desire to investigate and travel far beyond his planet. Since the National Aeronautics and Space Administration was established in 1958, the nation's resources in science and technology have been marshalled for the tremendous task of research and development that has led to progress in exploration. Today, the program -- diversified, complex and costly -- is nationwide in scope. Men and women in every-known field of science and the work force in thousand of factories are participating in a vast effort to acquire knowledge of space and to use space for beneficial purposes. A few of the scientific and technological details of this effort are shown in this group of photographs.

10-16 The Aurora Borealis, which forms strange patterns in the sky near the top of the world, is the subject of extensive research at the Geophysical Institute of the University of Alaska. Through the use of measuring instruments on the ground and atop high towers, scientists study the relationship between flares on the sun's surface and auroral displays, communications blackouts and magnetic storms. The United States has greatly expanded research on the sun's effects upon the earth and the radiation belts in space which are not as yet fully

62-2627 Science: Astronautics (Research)

Las auroras boreales, que forman extrañas muestras en el cielo, cerca de los polos de la Tierra, son objeto de una amplia investigación en el Instituto Geofísico de la Universidad de Alaska. Mediante el uso de instrumentos de medida en tierra y en la parte superior de elevadas torres, los científicos estudian la relación que existe entre las llamaradas de la superficie del Sol y la aparición de las auroras boreales, entre el cese o debilitación de las comunicaciones y las tormentas magnéticas. Los Estados Unidos han ampliado grandemente la investigación de los efectos del sol sobre la tierra y de las fajas de radiación en el espacio, no comprendidas aún suficientemente, y que son vitales para la exploración tripulada fuera de la órbita terrestre, estudio que ha progresado mucho mediante la utilización de satélites provistos de instrumentos lanzados por los Estados Unidos y los que proyecta para el futuro.

