

PHOTOGRAPHY

V-2 Rocket Movies Show Earth from 65 Miles

See Front Cover

► MOTION PICTURES showing how the earth would look to a man speeding up to 65 miles above the surface in a V-2 rocket have been recovered from one of the Nazi missiles fired over the desert at White Sands, New Mexico.

The movie was made from the fuselage of a rocket fired Oct. 24, and gives a continuous motion picture of the earth's surface at altitudes from 100 feet to 65 miles. Taking the unique pictures was a camera placed in the missile by scientists from the Laboratory of Applied Physics of Johns Hopkins University.

At the peak of the rocket's flight, 65 miles above the earth's surface, a photograph of the horizon was taken showing 40,000 square miles of the earth. It is this photograph that is on the cover of this SCIENCE NEWS LETTER. At that time the horizon was theoretically 720 miles distant, and an observer aboard the rocket would actually have been able to see 1,600,000 square miles of the surface by looking in all directions. This would have included the cities of San Diego, Salt Lake City, Kansas City and San Antonio.

With the rocket flying at a top speed of 4,000 feet per second, the motion picture camera recorded 50 feet of film as the missile soared up to the 65-mile altitude and began its descent. Film ran out 45 miles above the surface on the downward flight. The pictures were made to record the roll and pitch of the V-2, necessary information for interpreting data gathered on cosmic rays and from spectrographic records.

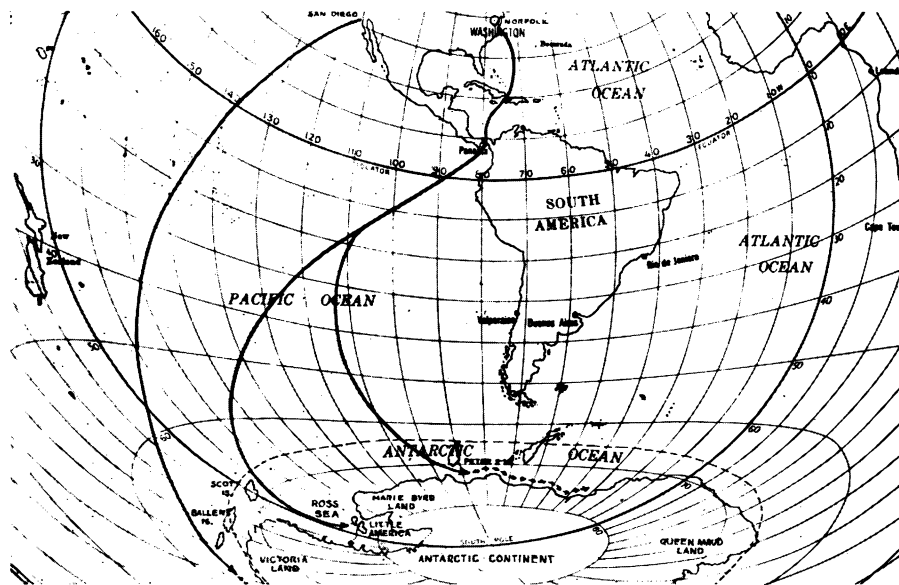
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NUCLEAR PHYSICS

Army Still Directing Atomic Energy Plans

► THE WAR DEPARTMENT announced the establishment of a new \$20,000,000 nuclear research laboratory to be operated by the General Electric Company near the firm's home offices at Schenectady, N. Y. Named the Knolls Atomic Power Laboratory, the new unit is the fourth in a network of national laboratories for development of atomic energy.

All such plants have been planned and



JOURNEY TO ANTARCTICA—The three main groups of the Navy's 1947 Antarctic Expedition will take these tracks. The groups are scheduled to leave the United States early in December and proceed into the Antarctic as soon as ice conditions permit. Official U. S. Navy Photograph.

announced by the War Department and its Manhattan District. These national laboratories are being set up as permanent centers of nuclear research, yet the civilian group which has been authorized to guide this program has barely been organized. Maj. Gen. L. R. Groves explains, "The work on this program began many months ago and will be transferred to the Atomic Energy Commission as a part of the broad peacetime development program."

Main argument in favor of the General's program is that a series of delays have left the wartime, Army-bossed Manhattan District the only agency which could do anything about the reconversion of atoms from bombs to peaceful pursuits.

If the Manhattan District had not gone ahead with plans for postwar development, the bomb project's vast resources would still be stalemated on a strictly military basis, losing more valuable time on the threshold of the atomic age.

The other side of the question is whether the recently-named civilian commission will agree with the planning done by their military predecessors. Instead of inheriting an atomic bomb factory and its far-flung subsidiaries, David E. Lilienthal and his fellow commissioners are getting a ready-made post-war system for the development of atomic energy.

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GEOGRAPHY

Byrd Leads Expedition Back to Little America

► HERE ARE some facts about the world's least known continent, Antarctica, as outlined by Rear Adm. Richard E. Byrd as he announced plans for another trek to Little America starting in a few weeks:

The southern polar continent is about the combined size of the United States and Europe, but roughly two-thirds of its 6,000,000 square miles have never been seen by man.

A coal deposit was spotted on previous trips within 150 miles of the south pole which would supply the United States with coal for 30 to 40 years.

Evidences of silver and copper have been reported. All metals will be searched for on the current trip, but uranium hunting will not be the main job, according to Admiral Byrd.

It has not definitely been determined whether the continent is one land mass or two islands. The explorer thinks it will turn out to be one solid chunk. The land of the Antarctic is not covered with ordinary ice and snow but with neve, the partially compacted, granular snow at the upper end of a glacier. This is what covered other parts of the earth during the Ice Age.

No woman has ever set foot on the world's southernmost continent.

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