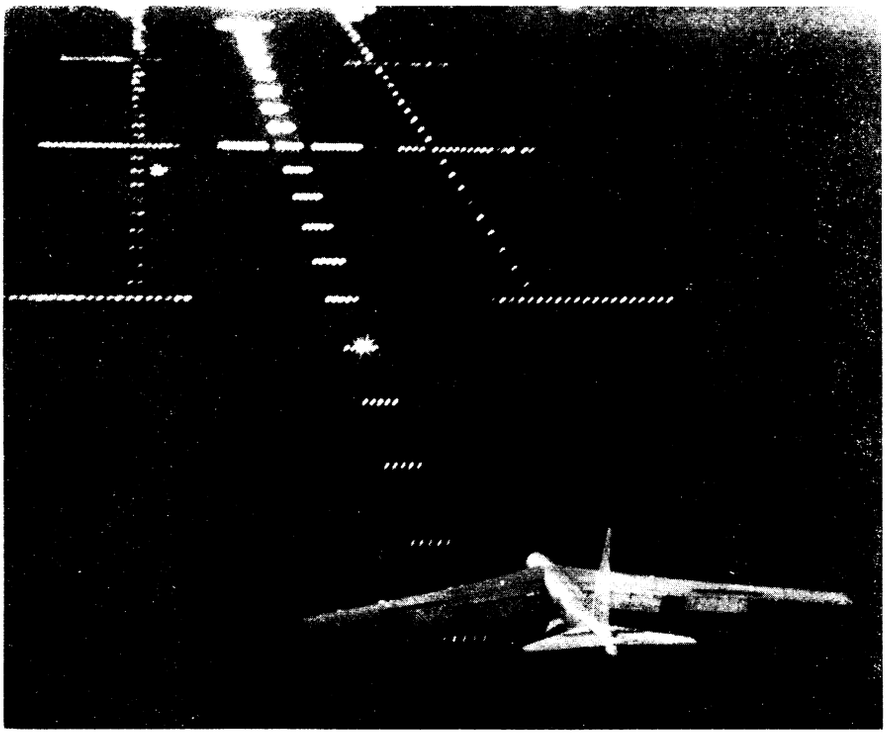

APPROACH LIGHTING SYSTEM—A U. S. Air Force B-52 Stratofortress descends swiftly in its glide path over the new approach lighting system developed by Sylvania Electric Products Inc. Ultrabrilliant flashes fired in sequence by Strobeacons in the system's center-line row of lights form an animated arrow of light pointing out the safe landing area to the pilot of the incoming plane. The 23 Strobeacons, which form the nucleus of the system, emit fog-penetrating light bursts of 30,000,000 candlepower in sequence twice per second. One of the light bursts is visible (above) to the left and forward of the B-52's nose.

AERONAUTICS

CAA to Control Airspace

➤ ALL AIRSPACE above 24,000 feet will be under the control of the Civil Aeronautics Administration within 60 to 90 days, CAA administrator James T. Pyle said.

This is the first step of a three-stage program designed to give "positive separation of all aircraft at upper levels," he told the Aviation Writers Association meeting in Washington. It will more than triple the square miles of airspace controlled by the CAA, and excludes only that lying within restricted and prohibited areas of the military.

Second stage, scheduled for January, 1958, consists of lowering the floor of the airspace under CAA control to 15,000 feet. During these two stages, Mr. Pyle said, the CAA would provide separation only between aircraft submitting flight plans to CAA and operating at altitudes and on routes assigned by it, that is, on Instrument Flight Rules. Military and private airplanes operating under visual conditions would not be included.

He estimated that it would be 1962 before the necessary equipment and personnel would be available to complete the program's third stage of the best possible protection for all aircraft.

As an interim measure, Mr. Pyle said CAA was working on a simplified air traffic system composed of 12 transcontinental routes "arcing across the United States like a striped football." He said today's air routes are a "crazy quilt," 2,500 variations in transcontinental flight plans having been counted for the pilots of one airline alone.

The immediate problem, Mr. Pyle pointed out, is to catch up with the "almost explosive growth of aviation," producing traffic volume that today's control system can handle safely only by imposing delays. Even this present system, he said, has a "phenomenal record, the best in the world." Other nations pattern their systems on the one used by the U. S., he noted.

"No fatal mid-air collision has occurred between two aircraft operating under CAA air route traffic control in IFR (instrument flight regulations) weather," Mr. Pyle said. The two airplanes that collided over the Grand Canyon last June 30 were not operating in controlled airspace. One was flying under visual flight regulations, and the flight plan filed for the other indicated a departure from IFR for that portion of the flight in which the fatal accident occurred.

He noted that a traveler is four times as safe today in an airliner as in his own automobile.

Science News Letter, April 6, 1957

GEOLOGY

Geochemical Prospecting Spots Uranium Deposit

➤ THE GEIGER COUNTER may become a secondary weapon in the search for the atomic mineral, uranium. An underground deposit of uranium has been found in eastern Washington by geochemical prospecting means, William D. Weaver, president of the Geo-Resource Corporation, revealed in Spokane, Wash.

This might usher in a new era in uranium prospecting, Mr. Weaver pointed out, and eliminate the hit-and-miss wild-catting methods now being used with the Geiger counter. Geochemical prospecting does not use the counter for locating deposits deep underground. Instead, scientists trace small deposits back to the mother lode, much as the gold miners of 1849 panned upstream for "colors" or gold tracings.

The geochemical method used to find the Washington uranium deposit, beyond the reach of the Geiger counter, was partially developed by geochemists with the Atomic Energy Commission and the U. S. Geological Survey.

The surface tracings resulted in the laboratory analysis of thousands of soil samples taken from the prospecting area. As the samples were taken from higher and higher up the mountain where the uranium was finally pin-pointed, a pattern of increasingly higher-grade uranium tracings developed.

"As we had anticipated," Mr. Weaver said, "final tests showed that the uranium ore body, whose tracings had led us up the mountain, rested on the bed rock, deposited and trapped on the granite beds centuries ago."

Geo-Resource is now awaiting a go-ahead from the Defense Minerals Exploration Administration in financing the deep diamond drilling to block out the exact limits of the ore body and to begin full mining operations.

Mining experts in Washington, D. C. believe that the uranium find using geochemical methods is the first of its kind reported in the United States. They say that it will be a slowly evolving but more and more useful means for prospecting for uranium, as it has been for other minerals. Geochemical prospecting has attracted wider and wider attention in this country in the past decade.

Although it has not been used in the United States to trace down uranium, the Russians have used geochemical prospecting for finding the atomic mineral.

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