

SCIENCE NEWS

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AERIAL PHOTOS FOR AGRICULTURAL PRODUCTION SURVEYS

AERIAL maps will be used by the U. S. Census Bureau in conducting the 1945 Farm Census scheduled to start on January 1, is announced by Clarence E. Batschelet, chief of the Geography Division of the Census Bureau.

The technique of aerial photography, now being used widely to prepare military maps, has been used in the past by the Department of Agriculture in its soil conservation program. This will be the first time that aerial photos will be used on a wide scale to help census-takers locate farm houses and study agricultural production.

Plans include the aerial mapping of about 360,000 of the 6,000,000 farms in the United States. By mapping only specially selected areas, data will be obtained which will be typical for certain types of agriculture. The aerial photographs which the Census Bureau will use will come from eight government agencies, including the Department of Agriculture and the Coast and Geodetic Survey.

Many townships and counties in farm areas do not have up-to-date maps. It is impossible, therefore, for census workers to locate recently developed farms and farm residences. The aerial maps will save much time and money in locating these rural properties.

Intensified surveys will also be made in corn, wheat, cotton and other crop areas. The aerial maps will not only locate the farmhouses, but give an accurate estimate of the plantings. Using these maps as a basis for questions, census-takers can gather data in sample areas, which may be applied to similar production areas throughout the nation.

Trained photo-reconnaissance map readers can determine from aerial photos such information as the size of the farm, probable number of horses, cows, chickens, information on farm machinery in use, crops raised, electrical equipment, and many other points. Aerial maps will be issued to census-takers at special schools where map-reading will be taught, along with instructions for compiling census information. Upon completion, the accumulated data will be used to compile special charts from which research analysts will plot trends in farming.

If the 1945 Farm Census fulfills the expectations of government officials, aerial photographs may play an important role in the decennial census of 1950.—ROBERT N. FARR.

ITEMS

VACCINATING babies and small children against whooping cough will probably become a more popular procedure now that three kinds of whooping cough vaccines, the Sauer, the Kendrick and Eldering, and the Harrison and Bell, have been officially approved by the American Medical Association. "Significant protection" in the way of either escaping the disease altogether or having a less severe attack is conferred by modern vaccines, Dr. Harriet M. Felton and Miss Cecilia Y. Willard, of Philadelphia,

report in the *Journal* of the association. Their report reviews many studies made by various scientific groups.

HOPE that penicillin might prove effective as a remedy for the acute stage of rheumatic fever gets a severe setback from two reports to appear in the *Journal* of the American Medical Association. From the U. S. Navy Research Unit at the Hospital of the Rockefeller Institute for Medical Research in New York, Lieutenant Commander Robert F. Watson, Dr. Sidney Rothbard and Dr. Homer F. Swift report that "Penicillin in doses ranging from 1,975,000 to 3,470,000 Oxford units given over a two-week period to eight young adults with acute rheumatic fever apparently failed to alter the course of the disease." Even more discouraging is the report of six Army officers working under the Army Air Forces Rheumatic Fever Control Program. They tried penicillin in 38 cases of rheumatic fever at Army Air Force installations and found that it not only failed to help the patients, but in some cases made the course of the sickness worse. The officers conducting the study were Major Frank P. Foster, Major George E. McEachern, Captain John H. Miller, Lieutenant Colonel Fred E. Ball, Lieutenant Colonel Charles S. Higley and Major Harry A. Warren.

PREPARATIONS are already being made to observe the total eclipse of the sun on July 9, 1945, in Northern Sweden. Great interest has been shown in this solar eclipse, according to a report in the *Monthly Astronomical Newsletter*, prepared at the Harvard Observatory, from Dr. Bertil Lindblad, director of the Stockholm Observatory. The path of the total eclipse, which will begin near Boise, Idaho, passes through Butte, Mont., and Yorkton, Canada. Crossing Hudson Bay, it goes through lower Greenland, into northern Scandinavia and on into USSR. Northern Sweden will be a good place from which to observe the eclipse. It will begin there in the early afternoon at about two and end at approximately four o'clock, Swedish standard time.

FIVE former B-17 Flying Fortresses, loaned by the United States to the Swedish Government, which in turn has assigned them to Aerotransport, a civilian airline, have replenished Sweden's dwindling supply of commercial airplanes. After the war, Aerotransport will be allowed to buy the bombers outright. Three of the planes have been modified to make space for three tons of cargo and fourteen passengers in the hold of the plane that once carried gun crews and bombs. The two other ships have been broken up to provide replacement parts. The range of these planes is such that from Sweden they can reach any point in Europe without stopping to refuel and be serviced. They will be used to carry air mail and passengers to Great Britain. Two of Sweden's previous civilian planes were shot down by the Nazis over the North Sea last year. This left the Swedish airline with only three planes before receiving the B-17's.