the FAO campaign but should give it more thrust, he said.

The FAO Council is considering methods by which present programs for moving surplus food can be improved. At the request of the U.S. delegation, the UN is studying what new techniques can be developed to add to the use of surpluses. FAO findings and recommendations are to be reported to the UN Economic and Social Council in June, 1961.

The Food for Peace Committee said the U.S. is not producing enough oils and fats, meats, butter, non-fat milk, soy beans, peas and other agricultural commodities aside from grains to sustain adequate diets either for our needy at home or for the needy abroad.

"To realize the aim of putting U.S. agricultural capacity to the fullest use to meet human needs and at the same time secure a fair return to the farmer," the committee said, "it will be necessary to bring about shifts in production from wheat and corn into the oils and fats and protein foods needed for a nutritional diet.

The feeding and clothing of the U.S. needy has priority over any overseas program. The program to assist those in economically distressed areas of the U.S. is being carried out by administrative action under existing law, although in some cases new interpretation of the law may be required.

Appropriations to carry out the provisions of Public Law 480 (the Agricultural Trade Development and Assistance Act of 1954) are due to come before the present session of Congress. Some of the law's most important financial authorizations expire on Dec. 31, 1961.

The Food for Peace Committee recommends a thorough revision of PL480 "to transform it from a surplus disposal act to a Food for Peace Act." Among the committee's recommendations for the revised law is authorization to the President to use or dispose of foreign inconvertible local currencies accruing to the U.S. under PL 480 operations.

"The steady accumulation of large amounts of inconvertible foreign currencies (allowed by Title I for purchase of commodities) is placing great and increasing burdens on the United States foreign relations and holds potentialities which are highly dangerous," the committee said.
"It is important for the Government, the

Congress and the American people to recognize that these local currencies are assets that are usable only in the countries of issue, with the agreement of the countries of issue; that they are not substitutes for dollars; and that they should not be subjected to the appropriations process.'

The Food for Peace program is a cooperative effort of a number of agencies, chief among them the Department of Agriculture, the Department of State and the International Cooperation Administration. The Export-Import Bank and the Development Loan Fund also are involved.

Mr. McGovern is charged with planning and coordinating the program. He reports directly to President Kennedy.

Science News Letter, 79:266 April 29, 1961

**GEOPHYSICS** 

# **World-Wide Haze Found** In Upper Atmosphere

► A WORLD-WIDE layer of "haze" in the upper atmosphere has been discovered by U. S. Air Force scientists.

The three-mile thick shell completely surrounds the earth about 11 miles out in space, Dr. C. E. Junge, C. W. Chagnon, and J. E Manson of the Geophysics Research Directorate, Air Force Cambridge Research Laboratories, reported in Washington, D C. The layer probably explains certain atmospheric effects observed during twilight hours.

The "hazy" layer was measured for the first time when balloons and aircraft sent aloft for atomic fallout studies collected air samples that contained an unusual concentration of particles at certain altitudes.

The particles were mostly ammonium sulfate crystals with some silicon and iron. Scientists believe the crystals form when gases such as hydrogen sulfide or sulfur dioxide drift upward into the upper atmosphere and are chemically changed by the bright sunlight of ozone, a form of oxygen.

Microscopic meteorites entering the atmosphere probably add to the silicon and iron impurities, the scientists stated.

The layer could produce the so-called "purple light" seen during twilight just after sunset or before sunrise. The hazy layer would scatter the fading rays of light to produce the atmospheric quirk.

• Science News Letter, 79:267 April 29, 1961

IMMUNOLOGY

### **Radioactive Tracers Reveal Life Processes**

➤ RADIATION is revealing important knowledge about life processes.

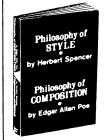
It is being used with great success in studying how bacterial cells make proteins. Proteins or enzymes are the chemical machines that set in motion all the many processes occurring in living cells. They are responsible for converting food into energy and new cell substance.

Dr. G. David Novelli, biology division, Oak Ridge National Laboratory, Oak Ridge, Tenn., told the Joint Congressional Committee on Atomic Energy that the use of radioactive tracers have revealed how a specific protein is formed.

Proteins are large molecules built of 20 different building blocks called amino acids. The sequence of arrangement of amino acids in a given protein is very exact. Radioactive carbon-14 was the tracer used to label amino acids to study the manner by which cells arrange their sequence.

Radioisotopes also have been used in the study of the phenomenon of immunization. These studies, described by Dr. Frank J. Dixon, chairman of department of pathology at the University of Pittsburgh School of Medicine, investigate how antigens, foreign substances, react in an individual to develop immunity.

Science News Letter, 79:267 April 29, 1961



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