

Earth and Environment Notes

CARTOGRAPHY

Space Photos Map Peru

An experimental photomap of Peru, which would have required hundreds, if not thousands, of conventional aerial photographs, has been made from only 11 pictures taken from space by the crew of Gemini 9.

The map, intended as a research tool in learning to utilize space photos, covers about 350,000 square miles of territory ranging from Ecuador to Chile and from



the Pacific Ocean to the Amazon Basin, at a scale of 16 miles to the inch. The Gemini photos, taken at random angles, were rectified by the Raytheon Co., then assembled by scientists from the U.S. Geological Survey and the National Aeronautics and Space Administration, and finally labeled with the aid of researchers from the Pan American Union.

Among the features identified on the map are cultivated lands; smoke from fires in the mountains; distribution of land, water, snow and clouds; geologic folds and faults; location of cities, towns, mines and other features; variations in tone and texture reflecting differences in soil and rock types and rugged topography of the Andes, including major basins that drain into the Pacific Ocean or the Amazon River.

ECOLOGY

Fish-killing Carp Suspected

The dreaded European carp has been found in Lake Hawthorn, four miles from Mildura, Victoria, Australia, and as a result, the province's Fisheries and Wildlife Department is surveying all inland waters in the area.

The European carp thrashes about and stirs the water and bottom-mud during breeding. This can smother eggs and suffocate other fish. The fine for bringing the fish into Victoria can be more than \$1,000.

Fishermen fear that the carp may have gotten into the River Murray through an overflow channel from Lake Hawthorn. The lake is therefore being netted; if any carp are found, the lake will be poisoned.

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POLLUTION

Pesticides in Gulf Oysters

Oysters in the Gulf of Mexico are concentrating DDT and other pesticide residues in their bodies, biologists at the Bureau of Commercial Fisheries laboratory in Gulf Breeze, Fla., report.

Dr. Phillip A. Butler, director of the laboratory, observes that the DDT residues are transmitted at ever-increasing concentrations as they pass up the food web from simple to complex animals.

Oysters exposed to two parts DDT per billion parts of water grow more slowly than normal, and concentrate the DDT in their tissues to a level of 25 parts per million.

If these oysters are fed to fish, Dr. Butler says, more than half the fish die within 48 hours.

Studies of the Gulf oysters are part of a national survey of pesticides flowing into coastal waters.

NATURAL RESOURCES

Fertilizer Found on Ocean Floor

Two survey vessels chartered by the University of California have discovered what may be rich sources of fertilizer on the ocean floor 300 miles east of Brisbane, Australia.

Significant traces of the mineral phospherite were found on the tops of three previously uncharted mountains, about 1,000 feet below the surface of the ocean. The mountains are about 10 miles in diameter and have "nice flat tops," according to Dr. H. W. Menard, professor at the University and leader of the research expedition.

PROSPECTING

Gold Found Off Alaska Coast

Gold has been reported from every one of 49 core sample holes drilled through undersea placer deposits near the famed "gold beaches" of Nome, Alaska, by a Department of the Interior research ship.

Though scientists at the Bureau of Mines report "no immediate commercial significance" to the finds, they are valuable in testing research techniques that in the future may markedly increase gold production.

METEOROLOGY

Atmospheric Reference Ready

Data from weather satellites, high-flying balloons and world-wide observation stations is summed up in the U.S. Standard Atmosphere Supplements, 1966, which has just been published by the Government Printing Office.

The book shows that old data on density of air above 93 miles was inaccurate, in at least one instance, by 100 percent. It was edited by the Air Force Cambridge Research Laboratories.