FROM MEXICO

Observatory Moves

Mexico's National Astrophysical Observatory, now at Tonantzintla, will be moved to a new site in the sierra of San Pedro Martir, Baja California, at a cost of 51 million pesos ($4,080,000).

The new site is at La Encantada, 125 miles south of Ensenada, and at an altitude of 10,168 feet.

"The site, in accordance with terrestrial observations undertaken by experts, and confirmed by satellite Tiros, is one of the most propitious locations for astronomical observation on this continent," says Dr. Guillermo Haro, observatory director.

"Apart from having a very low overcast index, the site offers very great atmospheric transparency with very low turbulence.

In addition to transfer of the Tonantzintla Observatory equipment to the new site, Dr. Haro plans acquisition of new equipment, with optical parts to be constructed for the most part in Mexico. Recently Mexico has made considerable advances in work of this nature, he says.

A new telescope, with two meter diameter (80 centimeters more than the one in Tonantzintla), will cost around 10 million pesos ($800,000).

Electronic and mechanical equipment will probably be acquired in Europe or the United States. However, the underframe of the new observatory will be totally Mexican.

Most of the money for the costly move will be in allotted to construction of a road from San Felipe to Ensenada, and from San Felipe to the mountain site. Total cost will be 37 million pesos ($2,960,000).

Actual moving of the Tonantzintla equipment will require 4 million pesos ($320,000). The balance will be for construction of the new observatory.

Federal and state Governments both will help on the road. *Emil Zubryn*

Atomic Arms Training

Atomic arms training has been added to the curriculum in Mexican army schools, according to a brief report by the Department of National Defense.

The Department ordered the addition of the courses "in accordance with the industrial and technological development of our country."

The first course, described as an "introductory course on nuclear energy," has been assigned to the Military Engineering School for students of construction, industrial and transmission engineering.

Generals, defense officials, and government spokesmen generally refuse to reveal the extent of the program or what arms will eventually be included. They admit only a round-table discussion at the Engineering School covering "the atom, its energy and application in the army, in accordance with the philosophical and political doctrine of our government."

One official denies Mexico is preparing for possible fabrication of the atom bomb and says this is outside of the current regime's policy, (and allegedly that of all Latin America), a policy which bans nuclear tests and atomic weapons.

Parasites Endemic

Fully 33 percent of Mexico's population is affected by amoebic intestinal parasites, according to gastroenterologist Dr. Octavio Orozco of the Mexican Social Security Institute Hospital.

Speaking at a meeting of regional medical associations in Guadalajara, Dr. Orozco labeled amoebic parasites as the most extensive of parasitic diseases in the republic.

Records show that about 10 percent of the amoebiasis victims die from the disease, Dr. Orozco says. Gravest complication is amoebic liver abscess.

FROM AUSTRALIA

Russians Study Fishery

Russia now knows more about Australian fishing grounds than does Australia.

Three Russian ships have been probing the depths off the Western Australian coast and in the Great Australian Bight over the last year. Fishing authorities believe the teams have been closely examining Australia's fishing grounds.

Apart from having the usual scientific gear, the vessels are all equipped with experimental and conventional large-scale trawling gear. The last of the three vessels, the Lira, with 10 scientists on board, has left Melbourne to report to the Vladivostok Institute of Fishing and Oceanography. "It was obvious their research work is far in advance of anything Australia has tackled," J. C. Wharton, deputy director of Victoria's Fisheries and Wildlife Department, says. This superior knowledge could give Russian fleets an advantage of several years if Australia were to start competing on a commercial scale.

"We have carried no broad surveys

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of this nature," says Wharton. The question of Russian—and Japanese—fishing fleets operating in what could be regarded as traditional Australian waters, is likely to be discussed in the the near future at the Federal-state fisheries conference in Perth. The conference is likely to consider the need for a full research program being carried out by Australian scientists, including the processing and packaging of fish. *William A. Scholes*

Nuclear Test Detection

A station to monitor nuclear tests will be operating in Western Australia soon. It will be one of several around the world to enforce the three-nation nuclear test ban treaty and monitor tests by other countries.

The 1963 treaty, signed by Britain, the United States and Russia, bans nuclear tests in the atmosphere, but not those underground.

The station, set up at the RAAF base at Pearce, will be staffed by Australian and British scientists. Information from the special equipment will be given to the two governments.

The station will detect and monitor atmospheric H-bomb blasts, including those triggered in the Pacific by France and those set off by China. The nuclear test detection center is on a site formerly used by the United States for experiments in the upper atmosphere. Equipment has been brought from Britain. The new station is expected to cooperate with a Swedish plan for a world nuclear detection club aimed at reinforcing a total nuclear test ban—should one ever be produced.

FROM ENGLAND

Glass Message Scrambler

A way of scrambling and unscrambling secret documents, using only a piece of glass, has been developed by British scientists.

But the glass (which need be no bigger than a hand-held magnifying glass) is not as simple as it looks. Instead of being made in a single piece it is actually, composed of many thousands of separate glass fibers.

And, instead of running parallel, these fibers are twisted about like strands of hair in a schoolgirl's plait. Because the fibers are transparent the twists cannot be seen.

When the glass is held over printed words it instantly minces them up so that all that can be seen is a page of meaningless squiggles. Each fiber picks up a separate and infinitely small fragment of the document and transmits it to the viewer in a displaced position.

Scientists of Rank Taylor Hobson Ltd. say the way to use the glass scrambler is to photograph a secret document through it. The photographed document can then be read only by someone in possession of the appropriate reading glass. It would be impossible to decode the document without the right glass, and nobody could copy the glass without knowing the exact arrangement of the fibers. *F. C. Livingstone*

Doctors Contend

A plan by the Ministry of Health to send a team of five medical experts to North America to persuade British doctors who emigrated there to return, is being severely criticized by the medical profession in Britain.

The team, which will leave London next month, consists of two doctors from the Ministry, and three senior hospital doctors from Birmingham.

Criticizing the timing of the visit and the composition of the team, Dr. Derek Stevenson, secretary of the British Medical Association, says, "If any doctors return to Britain as a result of this trip, the majority will be family doctors or relatively junior doctors in hospitals.

"Yet this Ministry team has no junior doctor who could talk to those in America on the same level, nor any practicing family doctor.

"In any case, the Ministry should make conditions for doctors here better before they try getting them to return from Canada and the United States."

The position of the family doctor is summed up by a doctor in southeast England: "Since last year the pay of family doctors has improved but the patients are just as demanding and the form filling is much worse. A doctor who comes back from the States should have his head examined."

Doctors Give Up Smoking

Doctors in Britain are increasingly giving up smoking, says A. J. Camm of Guy's Hospital, London. Fifty percent of doctors are nonsmokers, against 24 percent of other men. Among lung cancer research workers, cigarette smoking was practically zero.

FROM GENEVA

Monkeys vs. Malaria

Fremont Davis

Tools of science.

Owl monkeys are needed for research with malaria drug tests, and expeditions are planned by international malariologists to Central and South America to catch and learn how to raise them.

At a World Health Organization conference on the chemotherapy of malaria in Geneva, Dr. L. H. Schmidt of the University of California, Davis, praised the owl monkey as a model.

"We may well be on our way to more precise and directly applicable assessments of the activities of new antimalarials than has ever been possible before," he said. He pointed out that scientists have demonstrated that these monkeys are susceptible to infections with both falciparum and vivax malaria. They do not have natural malaria as other animals do, and they are small, tough and hardy enough for cage life.

Procurement and husbandry are the major obstacles to any attempted broad use of test systems with this monkey and the two malaria forms.

Dr. Schmidt was chosen to test a new drug developed in Germany, called RC 12, with which he has had encouraging laboratory tests. The Germans had worked with canaries in testing the drug, but primate tests are more satisfactory. After further animal tests, Americans will try the drug on volunteer prisoners, which is forbidden in Germany. *David Alan Ehrlich*