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COVER: A view along the San Andreas fault in Daly City, Calif. Despite warnings, people have continued to build their houses directly along the fault. Other new information about earthquake hazard reduction has also often been ignored. See article p. 90. (Photo by Robert E. Wallace and Parke D. Snavey Jr., courtesy U.S. Geological Survey).

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SCIENCE NEWS OF THE WEEK

U.S.-Sino Agreements on Science

The People's Republic of China plans to use color television in a campaign to quickly reverse its decade-long deemphasis of science, technology, foreign-language and advanced-education studies. Critically short of teachers, China is designing a national-education system where a single teacher can broadcast lessons nationwide. The American-made geosynchronous communications satellite and up to 3,800 ground-based receivers it will purchase under a cooperative "understanding" drafted by Chinese and U.S. officials in Washington last year is expected to cost on the order of \$500 million.

Purchase of the satellite was but one small provision included in the three agreements, three understandings and one accord signed January 31 by President Jimmy Carter and Vice-Premier Teng Hsiao-ping during the Chinese diplomat's week-long tour of the United States.

A five-year renewable umbrella agreement spells out ground rules for cooperative research and the scientific exchange of students and scholars in such areas as agriculture, energy, health, space, earth sciences, the environment and engineering. The agreement also sets up a joint U.S.-Sino Cooperation Commission to plan, coordinate and monitor programs and actions covered by the agreement. An executive agent will serve as a liaison for the commission in each country; the U.S. agent will be the Office of Science and Technology Policy, headed by Carter's science advisor, Frank Press.

Included under the umbrella agreement is an understanding for education drafted when a visiting Chinese delegation came to Washington last October. It confirms China's intent to enroll 500 to 700 of its students in this country during the current academic year; already 100 have arrived. Most will begin their stay in Washington with several weeks of intense English-language training. In return, 10 Americans will leave to study in China this year, followed by 50 more next year. Each country will pay the cost of its own participants.

Two areas of particular interest to the Chinese are high-energy physics and agriculture. There are already plans for the U.S. Department of Energy to assist the Chinese in design, construction and operation of a 50-billion-electron-volt proton accelerator. Fang-Yi, China's Deputy Prime Minister for Science and Technology, who accompanied Teng on his visit, said that the accelerator represented China's goal to pursue basic research on the cutting edge of science. Numerous agricultural exchanges already being planned will concentrate on farm machinery, citrus fruits, wheat, vegetables, seed research,



Teng and Carter in signing ceremony.

biological control of pests and veterinary science. Finally, mapping China's mineral and wildlife resources will become more accurate with the purchase of ground receivers to pick up data from the U.S. orbiting Landsat system. □

Paraphysics: Odds for psychokinesis

In gambling houses all over the world people are hunched over tables concentrating on red or black, on 11 or 7, on queen or ace. The ones who do this sort of thing at the races can be accused of attempts at telepathic (or maybe nontelepathic) communication with nonhuman species, but those concentrating on the turn of a roulette, a die or a card can reasonably be taxed with a belief in psychokinesis. Though the prophet Muhammad (among many others) scoffed, the belief in psychokinesis, in the proposition that people by taking thought can affect the behavior of inanimate objects, was widespread before his time and has been since.

In 1943 the pioneer systematic investigator of parapsychological phenomena, J. B. Rhine, reported that some people seemed able to affect the fall of dice by mental effort. Rhine's work has been brought into serious question in recent years, but now comes Helmut Schmidt of the Mind Science Foundation in San Antonio to say that his own work with random number generators of his own devising leads him to the qualified and somewhat troubled conclusion that there is statistical evidence in favor of psychokinesis.

He said this last week to the mixed consternation and fascination of a standing