RECLAMATION TESTS SATELLITE AS WATER MANAGEMENT TOOL

The Bureau of Reclamation and the U.S. Geological Survey are cooperating in a $146,190 experimental program to test the effectiveness of recording rainfall in the High Plains through use of the Earth Resources Technology Satellite (ERTS).

Commissioner of Reclamation Gilbert G. Stamm said the satellite will relay data from clusters of rain gages on the ground to provide reliable, nearly instantaneous rainfall information.

The project is part of the Bureau of Reclamation's High Plains Cooperative Program, a comprehensive research effort to refine the technology of seeding summer clouds to increase rainfall over the High Plains States. The U.S. Geological Survey is cooperating in the experiment through its Earth Resources Observation System (EROS) program.

"Satellite telemetry holds great promise for water resource monitoring and managing," Stamm said. "The marriage of space technology and ground-based monitoring instruments should provide a reliable method of gathering information for immediate use in research programs and resource management."

Western Scientific Services, Inc., of Fort Collins, Colorado, has been awarded a contract to install, test and maintain an ERTS data collection platform near Miles City, Montana, one of three research sites selected by the Bureau for its High Plains Cooperative Program. The Bureau is providing $121,190 of the total cost of the project, and the Geological Survey is providing $25,000.

The experiment will be split into two phases. First, a single data collection platform will be designed to handle data from 64 rain gages, and will be tested for use with two different types of precipitation gages. If this phase proves to be feasible, the entire network will be installed in the field to test the system's reliability.
The 64 gages will relay information on rainfall amounts to the data collection platform, which in turn will transmit the data to the satellite. From there, the information is routed through the Goddard Space Center and a National Weather Service facility in Maryland and on to the Bureau's Engineering and Research Center in Denver. There, scientists in the Division of Atmospheric Water Resources Management will use the information to analyze and evaluate the effect of cloud seeding research which will begin near Miles City next spring.