

EROS

What is EROS?

Recent aerospace activities have shown that data acquired from spacecraft can provide much important information on the earth's natural resources. EROS is the acronym from Earth Resources Observation Satellite, the Department of the Interior's program for applying all types of space data to the natural resources problems it faces. A satellite designed especially for sensing and transmitting information on natural resources is envisioned and would be of tremendous value to the program. EROS is being carried out cooperatively with NASA, the Department of Agriculture, and other agencies of Government, and is designed to blend the resources expertise of Interior with the space flight engineering expertise of NASA into a meaningful and economical earth resources survey program.

Where do we stand technically?

The Geological Survey and other Bureaus of the Department of the Interior have been applying remote sensors to resources problems for more than a quarter of a century. This experience, supported by the fund of resources information and resources associations developed through more than a century of study, enables the Department to define its data needs and to apply the data toward the solution of national resources problems.

During the past four years, we have been working intensively with NASA in aircraft sensor surveys of selected sites in the United States (Fig. 23). These recent surveys have improved our ability to apply well known sensors, such as cameras, in an optimum manner and have developed a greater understanding of the resources applications of the newer sensors, such as radar.

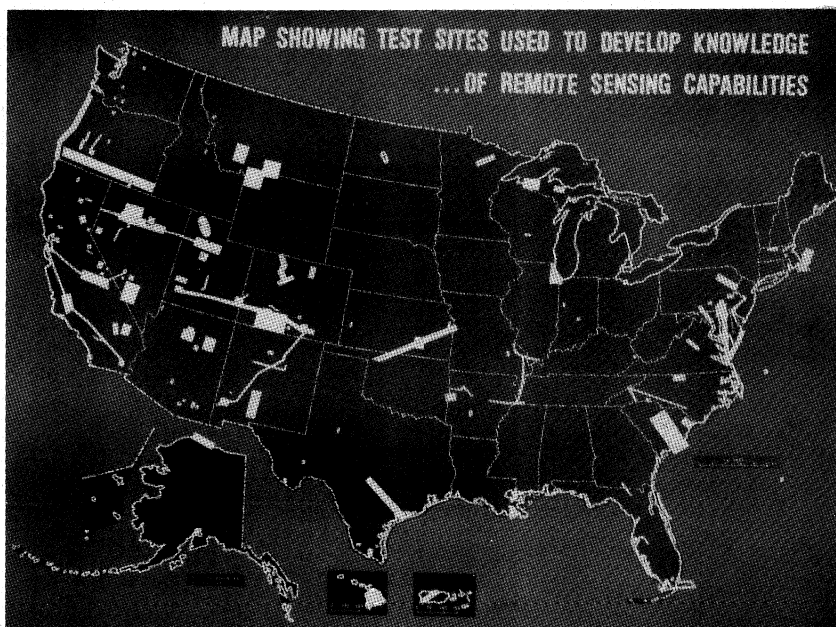


FIGURE 23

Studies of data acquired from Gemini and other spacecraft have demonstrated the validity of our theoretical conclusion that data acquired from space have unique qualities that recommend their use for analysis of changing conditions on the earth's surface and for the design of regional developments. These data also fill a role in the logical process of "zeroing in" on a resources target (Fig. 24).