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**AN EVALUATION OF SPACE ACQUIRED DATA AS A TOOL FOR
MANAGEMENT OF WILDLIFE HABITAT IN THE STATE OF ALASKA**

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ABSTRACT

ERTS data was analyzed and interpreted using color coded densitometric displays and digital processes to provide information on floristic phenology, vegetation zone mapping, and surface hydrology of the Yukon-Kuskokwim Delta.

The ERTS acquired data on vegetation and hydrology were compared with existing vegetation and surface water maps covering 70 percent of one ERTS frame. Multispectral (I²S) photographic data were acquired in an adjunctive effort, and subjected to the same analyses and interpretation as ERTS data.

It was concluded that ERTS data, with adequate verification from quadrat in situ sampling, could be extrapolated to describe accurately the vegetative characteristics of scenes far removed from the sample site.

Hydrologic data - surface acres of water - were immediately obtainable for a delta area containing thousands of small ponds important to wildlife and the production of waterfowl. Minimum pond size measurable from ERTS data was approximately 5 acres.

The application of the two techniques has great potential for developing accurate vegetation and hydrologic maps for millions of square miles in Alaska.

Multispectral photography (I²S) has not yet been compared with ground data to ascertain its adequacy as a substitute for the ground acquired data now considered essential to interpretation of ERTS data.