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USE OF THE SRI SATELLITE IMAGE ANALYZER CONSOLE FOR MAPPING SOUTHERN ARIZONA PLANT COMMUNITIES FROM ERTS-1 IMAGERY

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ABSTRACT

Cloud-free imagery covering the Tucson, Arizona, region for the period from August 22 to November 2, 1972, was used to show the utility of ERTS-1 data for discriminating boundaries between plant communities.

The following studies were made from imagery analyzed by Stanford Research Institute's Image Analyzer Console:

(I) Console-generated color composites from MSS-5 and MSS-6 bands were recorded photographically from the console color monitor. The color photographs were then used to compare with short-term changes in vegetative cover observed on the ground.

(II) Microdensitometric traces were made by the console along selected traverses to quantify changes in scene brightness across the image field. MSS-6 minus MSS-5 densitometry values were employed as a relative measure of plant cover in the wide range of vegetative zones covered by the traverses.

(III) Quantitative plant coverage data, recorded at ground-truth stations along the traverses, were compared with the densitometric values.