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APPLICATION OF A CLASS OF SEQUENTIAL
CLASSIFIERS TO MULTITEMPORAL
REMOTE SENSING DATA

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ABSTRACT

Developments in the technology of registering images collected by a multispectral scanner over the same area at different times have led to new possibilities for the extraction of temporal information from the scene. This may be of particular value for agricultural scenes, for example, where images from two or more temporally displaced passes can be combined to enhance the discriminability of the classes and thus increase the accuracy with which ground cover types can be determined. Temporal data also are of significant value where changes in the scene from season to season or even over a span of years are of interest. In this paper, we outline a strategy for using multilevel (layered or sequential) classifiers applied to multitemporal data to accomplish:

- a) discriminability enhancement in the multitemporal/multisegment case, and
- b) change detection.

Results obtained thus far are encouraging and will be discussed.

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