

The Use of Artificial Cloth Targets for
Positioning Airborne Scanner Imagery

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ABSTRACT

The detection of specific features to be used in attitude control of airborne scanned electro-optical imagery is often impeded by viewing geometries and terrain variations. To reduce dependence on natural features, artificial targets are deployed which will give good visibility on frame photography, and in the digital data which is collected in various wavelength windows. The spectral response of the cloth material, the surrounding surficial features and environmental effects are contributors to the variances by which target detection can be performed. The paper reports some experimental results in the definition of the target's geometry, its field deployment and its detection in both air photo and digital, multispectral scanner imagery.

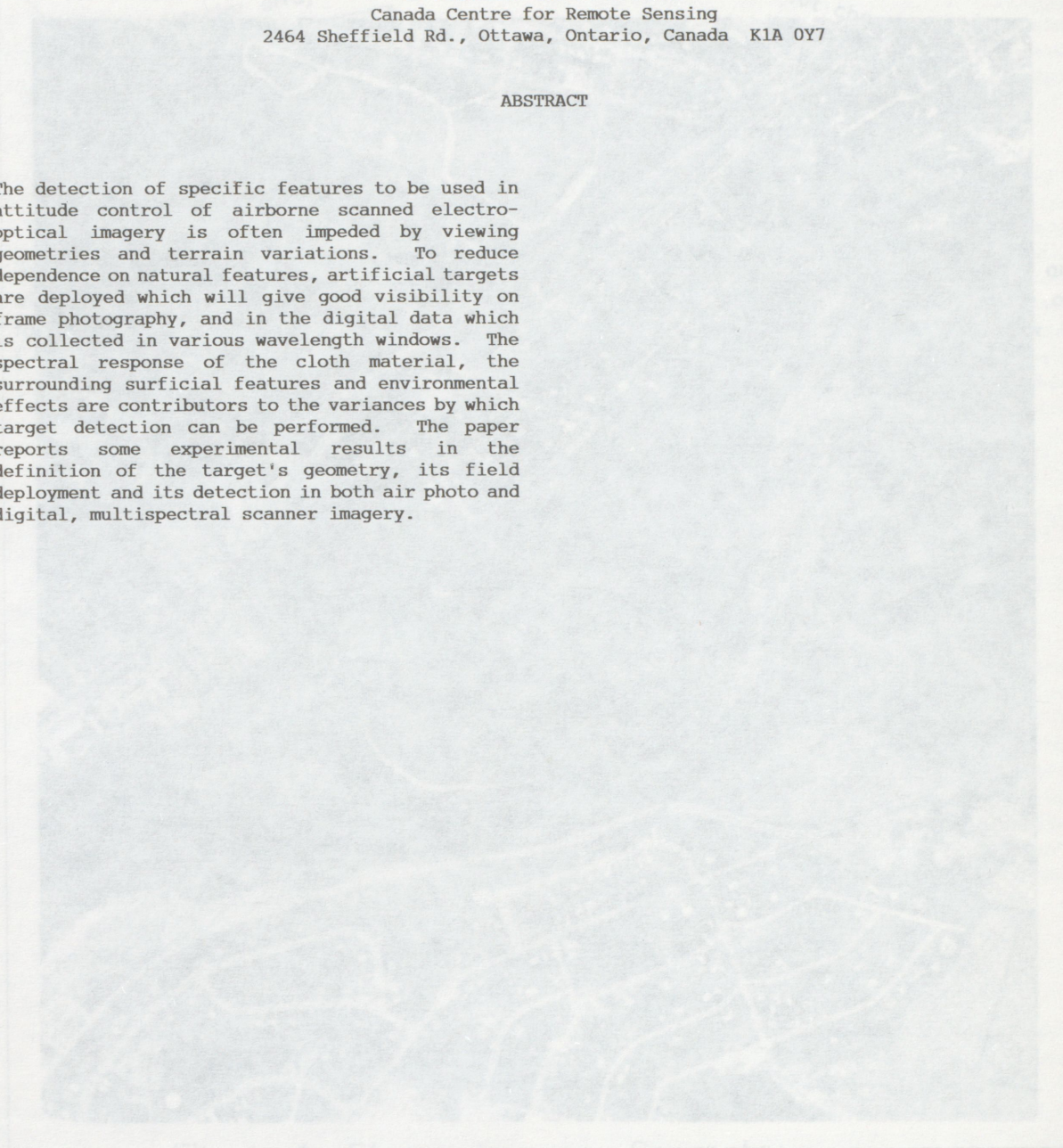


Figure 1. Target geometry.

Figure 2. Ortho-image mosaic. This figure illustrates a mosaic of ortho-images of two overlapping flight lines. The radiometric intensities have been balanced empirically and the images were merged using a linear weighting in the overlap region. The area shown covers 2km x 2km.