

Photogrammetry Pointers

A previous article on the fundamentals of photogrammetry should have helped convince the land surveyor that it is not a particularly complicated science. Although instrumentation is expensive, it has proved to be an efficient way of measuring.

There are several applications in the land survey field where a job can be done more economically where photogrammetry is employed. It is also possible to improve the survey presentation by utilizing a variety of products from the air survey industry. There may be many more, but the following are some of the more common applications for the practising surveyor:

1. Use of the Simple Photograph: The Ministry of Natural Resources has photographic coverage of most of the subdivided areas of the Province at a scale of 1320 feet to the inch. The surveyor will find a wealth of information on a single photograph to aid in estimating, reconnaissance, rough measurements, etc. More information can be obtained by using stereo pairs to get a three-dimensional view and the price would only be a few dollars.
2. Draft Plan of Subdivision: There is usually aerial photography in existence that would enable large-scale mapping to be prepared with contours that would more than satisfy draft plan requirements. Prices for mapping of this sort would normally range from two to four dollars per acre depending upon the scale and size of the area.
3. Mapping for Engineering and Architectural Design: How often has the surveyor been asked to prepare detailed topo surveys or site surveys and had the client gasping at the final statement? If it is a relatively large project, the use or partial use of aerial survey techniques may reduce the costs for these surveys.
4. Natural Boundaries: There are allowances under the Registry Act, Land Titles Act and Boundaries Act for the establishment of natural boundaries by controlled photogrammetric methods. How much better it would be to be able to avoid cutting all that bush in order to run an offset traverse or having to wait for winter to establish the shore-line of the river or lake. Photography taken at some past date may also provide valuable evidence for retracement, the best example being the record of a previous high water mark.
5. Application under the Pits and Quarries Act: More and more areas of the Province are becoming designated areas under this Act. Photogrammetry is in most cases the most efficient method to employ in order to satisfy the topographic survey requirements of the regulations.
6. Presentation: Blow-ups, mosaics, photo-flex, grey flex—these are all terms for scaled enlargements of one or several aerial photographs. These would depict an aerial view of the client's lands, a product more valuable to him for promotion than line drawings. The surveyor should be aware that it is possible to have lot fabric, contours, grid lines, etc., superimposed on the photo image. All this, and still reproducible by white print machine.