

A digital image analysis system will be necessary to work with imagery recorded in digital format. Digital image analysis systems vary in terms of capability and software, but share the same basic hardware. The computing is performed by a host computer. This can range from a personal computer to a supercomputer. Images are displayed on a screen which, typically, can display full colour images with graphics overlays. The user interacts with the image display using a graphics pad, mouse, track ball or joystick. Most systems allow the user to zoom in on specific locations in the image or roam around the image interactively. The software determines the kinds of analysis which may be done on a particular image analysis system. Digital image processing and analysis programs may be used for restoration, enhancement or interpretation of the imagery.

Costs for image processing equipment depends on the versatility and power of the computer equipment required, and the amount of software needed to perform data processing and analysis. For most applications, data processing can be accomplished adequately on either a personal computer or an image processing workstation with commercially available software. An image processing system consisting of personal computer with monitor, tape drive and software would cost approximately \$ 15-20,000 CDN. The cost for an image processing workstation with monitor, tape drive and software would be approximately \$ 25-35,000 CDN. Image production capabilities would be considerably more expensive, with digital printers costing approximately \$50-100,000 CDN. Printing the processed imagery on a medium for later use can be done on a commercial basis, costing approximately \$ 500 - 1000 per scene, depending on colour or black and white requirements.

### Personnel

Personnel requirements may be divided into two groups: aircrew and interpretive staff. A minimum crew of two people, but more likely three people would be required. With a crew of two people, the pilot would do the navigation and the