

5. REQUIREMENTS FOR FUTURE KNOWLEDGE

Future research efforts are required in the following areas and are listed in descending order of priority:

Short-term immediate

Establishment of the spectral characteristics of coral reef features; and the storage of this information in a nationally accessed computer-based spectral signature data bank.

This information is urgently needed:

- so that variables controlling data utility can be effectively eliminated or controlled in an operational situation;
- since many more spectral wavelengths are becoming available within remotely sensed satellite data; and,
- since in the future, users will be able to purchase usable wavelengths individually. To take advantage of this reduced-expenses and higher resolution offer however, spectral information is required.

Establishment of the separability and utility of digitalised aerial photographic data.

Such research is required because only the separability of aerial photograph image data has been assessed thus far (Kuchler, 1984). Furthermore, initial research attempts by Maniere et al., (1984) have outlined the applicability of digital image analysis techniques to aerial photographic coral reef image data.

Longer-term operational

Develop appropriate strategies for the realisation of a multistage coral reef resource inventory concept.

This research is necessary to maximise on all operationally available remotely sensed data.