

2. INTRODUCTION TO WORKSHOP REPORT

The impetus for this meeting stemmed from discussions with Professor John Swan (Australian Marine Sciences and Technologies Advisory Committee) and Mr Graeme Kelleher (Great Barrier Reef Marine Park Authority) who saw the need for an overview of knowledge in the rapidly accelerating research effort aimed at understanding the physical oceanography of the Great Barrier Reef region.

The meeting focussed solely on physical oceanography as the range of issues within this field are complex and occur over a wide variety of spatial and temporal scales. The scope therefore does not extend to multidisciplinary aspects, although it is hoped that this report may help in the identification of areas of physical oceanography relevant to other disciplines.

The object of the meeting was to generate a statement concerning the physical oceanography of the Great Barrier Reef region, this statement to be framed by answering the following questions:

- (a) What is the present state of knowledge?
- (b) What appear to be the most important unanswered questions?
- (c) With regard to (a) and (b), what methods would be most effective in answering the questions posed in (b)?

- (d) What routine monitoring measurements would appear to be of most scientific value in increasing our knowledge of the region?

All present and past researchers in the field were invited to attend, as were the more experienced Australian physical oceanographers without direct Barrier Reef experience. The participants and their addresses are listed in Appendix 1. Brief summaries were presented by some participants (indicated in the list by an asterisk) after which the participants broke up into groups to draft sections of the report. An edited version of the material written during the workshop was circulated widely for comment, and all comments have been incorporated into this report. As far as possible it has been editorial policy to retain original wording and to preserve the emphasis placed on topics by the workshop participants.

The workshop has concentrated on that research conducted in the last five years, and the extensive review by Pickard et al (1977) provides many of the foundations for this report.

The reference list has been largely restricted to publications in refereed journals, and those references prior to 1976 do not appear here as they appear in Pickard et al (1977). Internal reports have also been included where these are a sole reference, while conference proceedings have not been included.

Towards the end of the workshop, the possibility of a large scale multi-institutional experiment arose in discussion since many participants felt that such an experiment was the only way of answering some of the questions posed.

The following four sections comprise the answers to the posed questions, while references and the list of workshop participants follow.