

Preface to the Second Edition

It has been nearly twelve years since the publication of the first edition of this book. During this time, many journal papers have been published on various aspects of micrometeorology and the related areas of atmospheric boundary layer and turbulence. Several new books and monographs have also been published (Stull, 1988; Sorbjan, 1989; Monteith and Unsworth, 1990; Garratt 1992; Kaimal and Finnigan, 1994). The primary motivation for preparing this second edition came from the perceived need to update the material, incorporate some worked-out example problems in each chapter, and include a comprehensive treatment of observations, theories and models of the atmospheric boundary layer. I hope that I have accomplished these tasks, while retaining the original scope and objectives given in my Preface to the First Edition. Updating has resulted in an expanded list of references. Worked-out example problems should help the reader in solving other problems and exercises given at the end of each chapter. The new Chapter 13 provides a comprehensive review of stratified atmospheric boundary layers, while much of the material of the old chapter on the marine atmospheric boundary layer has been incorporated in other chapters. Other chapters have also been revised and updated, wherever appropriate.

I would like to thank the reviewers of my proposal for the second edition for their excellent suggestions. I would also like to thank the publishers and authors for their permission to reproduce many figures and tables in the book. The original sources are acknowledged in the legends of figures and tables, whenever applicable. Finally, I wish to acknowledge the help of Ms Mel Defeo and Ms Michele Marcusky for word-processing of the manuscript and in performing the painstaking tasks of spellchecking, proofreading, and correcting several times during the last one and a half years.