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Preface

There has been a remarkable increase in the scientific and engineering literature dealing with the coastal zone during the 20 years since publication of the first edition of this text. To suggest that the present edition is a "revision" is therefore something of an understatement. In 1976 when the first edition was published, little was known concerning the patterns of wave transformations and dissipation within the surf zone and how these water motions produce cross-shore movements of sediment resulting in beach-profile variations. Profile responses to storms had been documented, but there was little understanding of the underlying causes. By 1976, suggestions had been made that edge waves might be an important form of energy in the nearshore, responsible for the generation of rip currents and for the rearrangement of beach sediments into crescentic bars. At that time, however, no direct measurements had been made of edge waves on ocean beaches to verify that they actually exist outside of the laboratory, and this uncertainty resulted in much debate as to their relevance. This debate has been muted by the clear documentation of the presence of edge waves in the nearshore and that they often contain substantial amounts of energy. We continue to explore their roles in contributing to the transport of sediment in the nearshore and their effects on the beach morphology. These are only a few examples of research advances during the past 20 years, and many others could be cited touching on almost every aspect of beach processes and sedimentation.

In writing this text I was faced with a large volume of literature from scientific and engineering journals and conference proceedings, more than I could satisfactorily summarize in the text while maintaining the total number of pages reasonable and the product readable. Of course, I read many more papers than could be cited and in the end had to select for inclusion only representative publications covering each of the topics. These have tended to be the historic publications (the "first" contribution), those that made significant and lasting contributions, and finally I have tried to cite at least one recent paper that establishes the "state of the art" on the topic and from which the reader can derive an up-to-date list of relevant references. My choices of papers to be summarized were often subjective, so I apologize to the researchers whose important publications have been left out.