
Introductory Remarks

J. C. Swallow

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Introductory remarks

BY J. C. SWALLOW, F.R.S.

Institute of Oceanographic Sciences, Brook Road, Wormley, Godalming, Surrey GU8 5UB, U.K.

For most people, the continental shelf seas are the nearest large bodies of water. Understanding their circulation, and how their water gets mixed and exchanged between inshore and offshore regions, has some practical importance as well as scientific interest. There are several reasons for discussing this subject now. In the past five years or so, there have been notable advances in understanding some features of shelf circulation caused by varying winds. At the same time, and somewhat separately, knowledge of fronts in shallow seas has improved rapidly, thanks mainly to the easier availability of infrared images of the sea surface from satellites. Finally, some progress is beginning to be made on the question of the relation between fronts and the circulation. In the succeeding papers, some aspects of all these topics are reviewed and discussed.

It is ten years since the Royal Society held a Discussion Meeting on the circulation of the sea. That was on 'Ocean currents and their dynamics' (*Phil. Trans. R. Soc. Lond. A* **270**, 349–465 (1971)). It took place just before the Mid-Ocean Dynamics Experiment in 1973. Many of the participants in that experiment came to the meeting, and made good use of the occasion for advancing their plans. At present, though no specific large experiment like M.O.D.E. is being contemplated in shelf seas, it is hoped that these reviews and discussions will be helpful in planning future work, such as a possible shelf-edge experiment northwest of the British Isles.