This monograph makes interesting reading, is free of misprints and well produced for the nominal price of $5. For the manager it puts the application of numerical techniques into their true perspective. The statistician will find it refreshing as the authors clearly understand his problems. For these reasons this text can be recommended.

C. D. BEAUMONT

Applied Network Optimization

CHRISTOPH MANDL

Academic Press, London, U.K. 1980. £11.80.
ISBN 0 12 468350 9

A first glance at this book revealed several pages devoted to the output from computer programs. Examination of the text showed that little information concerning the original programs was provided, other than a reference to a user manual. ("And what is the use of a book", thought Alice, "with computer output, but no source code?".)

Turning from what this book does not provide to what it does: it is devoted to problems of network development and design, together with the problems of routing and location associated with networks. It thus usefully complements most texts on networks, which tend to be concerned with more static problems. Each section of the text presents a 'real-world' problem, such as the location of emergency facilities, the design of a pipeline network, or the routing of street cleaning vehicles and then presents a solution algorithm. Most of these problems are associated with the public sector, though the methodology is obviously transferable to other enterprises.

This format, of problem followed by solution, is a common one in many text books, however, it seems to fail in this case. Most problems are treated as deterministic and only limited attention is given to constraints. So traffic assignment may be constrained by flow-dependent costs, investment constraints limit sequential construction of the network and vehicle routing may be limited by route lengths. The transition from problem to solution is marked by a sharp change of style; the reader is often little prepared for the mathematical notation employed, although the shock is relieved by worked examples (including the computer output!). Exercises are given to allow the book to be used as a teaching text.

There is a need for a book dealing with the problems presented here; I am not convinced that this is the answer to that need. Nonetheless, if you have network problems to solve now, and are prepared to get to grips with the algorithms here, then it is a potentially valuable collection of techniques.

DAVID K. SMITH

Probabilistic Models in Engineering Sciences—Vol. 2 Random Noise Signals and Dynamic Systems

H. J. LARSON and B. O. SHUBERT

Wiley, New York, U.S.A., 1979. 737 *pp.* £15.00
ISBN 0 47 101751 9

This is the second of two books devoted to the introduction of applied probability theory, and assumes knowledge of the concepts introduced in the first volume (*Random Variables and Stochastic Processes*: reviewed J.O.R.S. Vol. 31. No. 10, 1980 to the level of a post-calculus probability course, and differential equations and Fourier transforms. It may however be studied independently, given that Larson and Shubert give a summary of their first text which forms Chapter 1.