has not been adapted to the more usual style for the written word. However, it is for the most part very readable nevertheless.

The authors, the IAU and the publisher have all obviously gone to considerable trouble in preparing this book, which is a useful record of the day's proceedings but, oh dear, for whom?

Jacqueline Mitton

THE SUN, OUR STAR

By Robert W. Noyes. Harvard University Press, Cambridge, Mass., and London, 1982. Pp. 263, hardback, ISBN 0-674-85435-7, £16.

Many BAA members will recall Menzel's *Our Sun* which became a standard textbook on the topic. This volume is intended as a successor to that book and proves to fulfil the role admirably. As the author says, much has been learnt since Menzel's time and there is always a place for a book of this type.

The author's style is lucid and he leads the reader through the subject in the conventional way. The place of the Sun is described in some detail which brings in quite a lot of other basic astronomy in the first chapter. The next five chapters tackle more-detailed aspects with a strong emphasis on observations as well as on the theoretical background. The next three chapters contain much of the newer material which had to wait until the Space Age for any sensible information on the corona and solar winds. Two chapters are a sign of the times as they concentrate on the Sun's influence on the climate and on solar energy. Gratefully, the author does not go overboard for so-called alternative energy and he presents a well-balanced discussion on what is often an emotive topic. The book finishes with a résumé of the life history of the Sun.

Obviously, I concentrated a great deal of attention to the chapters containing references to the Maunder Minimum and to eclipses. Both were described very well indeed and are as concise a review as one will ever need. In many ways, I think, monochrome illustrations still command great impact and the eclipse prints were obviously chosen with great care with this point in mind; the book is well illustrated throughout and the diagrams are clear and informative.

I noted few printing errors and such detailed comments as I have are almost in the same category of 'printing' errors. The book is presented in metric units, with some comparisons, but occasionally the author slips up and other units alone creep in, for instance on pages 9, 73, 145 and Diag. 1.4. Also, on page 30 *et seq.*, Ångstrom units and microns are used when nanometres (nm) are the preferred units in spectroscopy. Later on, in Diag. 2.13, wave numbers are referred to as "energy" but are not defined. The term is familiar to infrared spectroscopists of my generation but its use in the visible range is perhaps a little out of context in an isolated diagram. Vectors without units is one way out of this problem.

Ionization processes in the corona are described from page 157 and this leads to a wider discussion of the processes in other stars. Only a few years ago this information would have been regarded as fanciful or even science fiction, and shows how much our understanding has been advanced by spaceprobes. Some of the practical applications of space exploration are covered including energy needs on Earth. The author rightly points out the environmental hazards from the suggestion that microwave energy is beamed back to Earth-based collectors; I suppose in this he includes the needs of radio astronomers for a clean background. Perhaps he will go on in some future edition to consider the visual astronomer, who has to contend with sunlight reflected from large space vehicles in orbit.

The index is compressed into 2½ pages and is really only suitable to point out main revision topics, but this is quite an important factor in a book like the present one. It is my only main criticism of the book because it is so well presented that I find myself riffling through the pages for revision rather than going to the index. The fact that I do this confirms my high recommendation of *The Sun, Our Star*. The only pity is that it costs so much.

Michael Maunder

HIGHLIGHTS OF ASTRONOMY, Volume 6

Edited by Richard M. West. D. Reidel, Dordrecht, 1983. Pp. viii + 817, hardback, ISBN 90-277-1564-5, $93·50; paperback, ISBN 90-277-1565-3, $43·50.

TRANSACTIONS OF THE INTERNATIONAL ASTRONOMICAL UNION, Volume XVIII B: Proceedings of the Eighteenth General Assembly

Edited by Richard M. West. D. Reidel, Dordrecht, 1983. Pp. x + 603, hardback, ISBN 90-277-1563-7, $69·50.

These two volumes are concerned with the IAU General Assembly held at Patras, Greece, last year. The second of them—the Proceedings of the General Assembly—is literally that, plus a series of tributes to the late Professor M. K. V. Bappu, the President of the IAU, who died in Munich at the time of the General Assembly. It records the reports of the various IAU Commissions, the report of the Executive Committee, much technical information on nomenclature, and a list of members of the Commissions and of the Union. Set in camera-ready typescript or in computer printout, it is one of those books no professional astronomical library of any size can afford to be without. But it is not the sort of thing that one would pick up for an evening's relaxing astronomical reading.

On the other hand, *Highlights of Astronomy*, which is a collection of the invited discourses given at the General Assembly together with the proceedings of six Joint Discussions and some of the Joint Commission Meetings, is different. There is much here to interest the astronomer, professional or serious amateur. Michael Hoskin's "Astronomy in Ancient Greece" is first class, with a particularly good attempt to get a modern reader's mind into the correct historical perspective; the "plausible scenario" for the formation of the Solar System by G. A. Herbig makes interesting reading, as does Ya B. Zeldovich's romp through cosmology; some strange quirks of spelling in this but, no matter, the review is masterly even if of a rather higher level than the other invited discourses. The origin and development of solar flares by C. de Jaeger is an overview which should, surely, still interest those who do not consider themselves solar physicists or solar observers. The Joint Discussions cover a wide canvas, ranging from the question of variations in the Sun's luminosity to values of the Hubble constant and active galactic nuclei. So, too, the Joint Commission Meetings, though here and there the contributions are no more than a brief note which is merely inserted, I suspect, to record that some research is being done (grant-providing bodies please note!).

But the brief abstract does not make too frequent an appearance and there really is a lot here; it may be only a review of some aspects of astronomy yet it is none the worse for that. It is, of course, mainly if not entirely, a book for institutional astronomical libraries, but it is worth more than a brief glance all the same.

Colin A. Ronan