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Gerald North  
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#### About the author

Gerald North is an experienced amateur astronomer with a special interest in transient phenomena on the Moon. He has contributed observations to the Lunar Section of the British Astronomical Association since 1979, and has been a guest observer at the Royal Greenwich Observatory. He likes the hands-on approach to astronomy, and has built much of his own equipment. This practical experience is shared in his book, *Mastering Astronomy* (1988) and is further developed in this second edition of his acclaimed *Advanced Amateur Astronomy* (first edition 1991).

#### Cover illustration

Imaging Comet Hyakutake at Chiricahua National Monument, Arizona, USA, from an altitude of 2100 m (7000 ft). © Glenn LeDrew 1996, used with permission.

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GERALD NORTH BSc.



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To the memory of Mr F. W. (Bill) Peters  
astronomer, gentleman, and friend

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## Preface to the second edition

The few years since the first edition of this book was published have seen some remarkable changes. Chief amongst these must be the blossoming of the field of electronic imaging in the arena of amateur astronomy. Consequently, I have included a special new chapter on this subject, as well as expanding on some of the more traditional subjects. I have brought the whole of the text up to date, including a greatly expanded section on the sources of further information.

I hope that you will enjoy reading this book and find it useful. Above all I hope that you, like me, continue to pursue astronomy *for the love of it!*

Bexhill-on-sea  
30 April, 1996.

*Gerald North*

## Preface to the first edition

There are currently many books on the market which cater for the novice amateur astronomer. However astronomy, like almost everything else, has become much more sophisticated in recent years. Many observers wish to go on beyond the stage of just looking, or making simple observations of the celestial bodies. There are only something like ten thousand professional astronomers, worldwide. Consequently the opportunities are there for amateurs to make a particularly valuable contribution in astronomy, as in no other science. Even if one has no real wish to advance knowledge, astronomy is a hobby which becomes so much more enjoyable with just a little increase in effort and in sophistication of approach.

At present there is a real paucity of books which cater for the more advanced amateur astronomer. This book was written with the aim of filling that gap. What about that term - *amateur*? It strikes up connotations of slap-dash and trifling work carried out by someone very inexperienced. I use that term many times in this book but never, **never**, **NEVER** in that context. Instead, I use it in the sense of its more exact meaning - *someone who cultivates an art or study for the love of it*.

I hope that you enjoy this book and find it useful. In order to make it of manageable (and affordable) size I have had to deal with some subjects extremely tersely and one or two areas I have had to leave out altogether. However, I have been able to include all the major areas of work likely to be of interest to most readers. In addition I recommend reading further in your chosen specialist fields and to this end I have included an extensive list of references in Chapter 17.

I have enjoyed pursuing my interest in astronomy for over two decades. I hope to continue doing so for a lot longer. Above all I hope that you, like me, will pursue this fascinating subject - *for the love of it*.

Bexhill-on-sea  
23 February 1990.

*Gerald North*



## Acknowledgements

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The first edition of this book was published by Edinburgh University Press and I would like to thank Mrs Vivian C. Bone and her staff for their excellent work which made it the success it was. Of course, my grateful thanks also go to Dr Simon Mitton and his staff at Cambridge University Press for taking this book on and for *their* excellent work on it.

I would also like to use this opportunity to offer my special thanks to the Director and staff of the former Royal Greenwich Observatory, at Herstmonceux, for allowing me, as a guest observer, the privilege of using their resources and telescopes between January 1985 and March 1990.