

Practical Amateur Astronomy Celestial Objects for Modern Telescopes

Amateur astronomy is entering a new and exciting era, and this completely modern and up-to-date guidebook has been written for those star-gazers who wish to make the most of the latest technology.

Based on field notes made by the author during his own career as an amateur astronomer, this unique guide covers both traditional and novel approaches to studying the night sky. In addition to the more-standard techniques, it discusses the latest modern resources available to today's astronomer, such as personal computers, the Internet, and computerized telescopes. It includes practical advice on aspects such as site selection and weather; provides the reader with detailed instructions for observing the Sun, Moon, planets, and all types of deep-sky objects; and introduces newer specialties such as satellite observing and the use of astronomical databases. The book concludes with detailed information and observing tips for 200 interesting stars, clusters, nebulae, and galaxies, specially chosen to be visible with modest-sized telescopes under suburban conditions.

A new book for a new type of observing, *Celestial Objects for Modern Telescopes* will form the vanguard of new books in this area for the twenty-first century. Written to complement the author's other recent book *How to Use a Computerized Telescope*, this book will also appeal to astronomers with more-traditional equipment.

MICHAEL COVINGTON, an avid amateur astronomer since age 12, has degrees in linguistics from Cambridge and Yale. He does research on computer processing of human languages at The University of Georgia, where his work won first prize in the IBM Supercomputing Competition in 1990. His current research and consulting areas include theoretical linguistics, natural language processing, logic programming, and microcontrollers. Although a computational linguist by profession, he is recognized as one of America's leading amateur astronomers and is highly regarded in the field. He is the author of several books, including the highly acclaimed *Astrophotography for the Amateur* (1985; second edition, 1999) and *How to Use a Computerized Telescope* (2002), which are both published by Cambridge University Press. The author's other pursuits include amateur radio, electronics, computers, ancient languages and literatures, philosophy, theology, and church work. He lives in Athens, Georgia, USA, with his wife Melody and daughters Cathy and Sharon, and can be visited on the Web at www.covingtoninnovations.com.

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Michael A. Covington

Frontmatter

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Practical Amateur Astronomy

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Soli Deo gloria

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Preface

Together with its companion volume, *How to Use a Computerized Telescope*, this book is a guide for a new generation of amateur astronomers. The two books began as a single project, originally a list of interesting objects that I put together for my own use at the telescope. Soon I added a concise summary of the Meade LX200 operating manual. Simon Mitton of Cambridge University Press saw my notes and encouraged me to turn them into a book. As the project grew, it became two books instead of one – a book about telescopes and a book about the sky. This volume is the latter.

While I was writing the two books, Scott Roberts of Meade Instruments lent me equipment to try out. The technical support departments at Meade, Celestron, Software Bisque, and Starry Night Software answered technical questions. Daniel Bisque supplied software for testing. Howard Lester, Dennis Persyk, Lenny Abbey, Rich Jakiel, T. Wesley Erickson, Robert Leyland, R. A. Greiner, Richard Seymour, Ralph Pass, Phil Chambers, Ells Dutton, Michael Forsyth, and John Barnes critiqued drafts of parts of the text. Tom Sanford let me try out his Meade LX90 at length. Earlier, Jim Dillard first got me interested in computer-aided astronomy by buying my old Meade LX3 from me and outfitting it with digital setting circles. There are probably others whose names I've forgotten to list, and I beg their indulgence. And I have hopelessly lost track of who helped with which volume! I also want to thank Janet Mattei of the AAVSO and Maurice Gavin of the B.A.A. for help with variable-star charts and spectrograms respectively. My wife Melody and my daughters Cathy and Sharon provided valuable encouragement and displayed admirable patience.

Please visit me on the Web at <http://www.covingtoninnovations.com>, where this book will have its own web page with updates and related information.

Michael Covington
Athens, Georgia
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