

## **Astronomical League Guide To Open Star Clusters Astroleague**

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**Cambridge Astronomy Guide** William Liller 1990-08-23 '... (the book) conveys the enthusiasm and excitement of the authors even at the potential of an astronomical discovery, a lot of advice is useful, and it would certainly encourage and help anyone to have a go at astronomical photography.' Astronomy Now

The Cambridge Guide to Astronomical Discovery William Liller 1992-10-30 How would you like to discover a comet? Or be the first person to recognize a new star? This book will tell you how, and more! Writing for amateur astronomers using backyard equipment, noted astronomer, Bill Liller, describes exactly how to search the night skies for the unexpected, and what techniques work best for making astronomical discoveries. Author Liller covers all kinds of objects, such as comets, asteroids, novae, and supernovae that an amateur can hope to find as a result of systematic searching. One chapter also includes sage advice from successful amateurs, such as David Levy and Minoru Honda (comets), Bob Evans (supernovae), and Eleanor Helin and Brian Manning (asteroids), who share the secrets of their methods. The use of electronic technology is included, as well as instructions on how to publicize a discovery. Extensive appendices contain a wealth of essential data for every new discoverer of cosmic events. William Liller is the coauthor (with Ben Mayer) of the Cambridge Guide to Astronomy (1985) and has had a minor planet (3222) named after him.

**The Complete CD Guide to the Universe** Richard Harshaw 2007-04-13 This is the largest and most comprehensive atlas of the universe ever created for amateur astronomers. With finder charts of unprecedented detail, in both normal and mirror-image views, and an extensive list of 14,000 objects, it provides a detailed observing guide for almost

any practical amateur astronomer, up to the most advanced. Spanning some 3,000 pages, this is a project that is possible only on CD-ROM. The CD-R pages are extensively indexed and referenced for quick location of objects. The accompanying book gives an introduction to the Atlas, showcases the maps, describes the CD-R content and organization, and includes various appendices.

**Astronomical Sketching: A Step-by-Step Introduction** Richard Handy 2007-10-08 This book presents the amateur with fine examples of astronomical sketches and step-by-step tutorials in each medium, including pencil, pen and ink, chalks and pastels, painting and computer graphics programs. This unique book can teach almost anyone to create beautiful sketches of celestial objects by following simple, illustrated, step-by-step instructions. Readers can select a chapter related to their preferred class of object, and rapidly learn techniques in several media. Each chapter contains useful information regarding equipment, techniques for preserving and archiving sketches, and suggestions for accurate record keeping.

**Astronomy of the Milky Way** Michael Inglis 2004-01-30 Deep-sky observing, looking at objects beyond the solar system, is the most popular field for amateur astronomers. Of all the areas of the night sky, the Milky Way - that's the view looking towards the centre of our own galaxy - is the place where most of the interesting deep-sky objects accessible to amateur astronomers lie. It is one of a two-volume set that deal with the entire Milky Way - this second volume looks at what can be seen predominantly from the Southern skies. Equipped with this book, an amateur astronomer can go out on any clear night of the year and observe the galaxy we live in - The Milky Way. Astronomy of the Milky Way includes many of the latest professional pictures of Milky Way objects as well as amateur images, and also features star charts and maps for quick location of interesting objects.

The Star Guide Robin Kerrod 2005-02-22 An international bestseller for more than a decade, The Star Guide has been the bible for stargazers everywhere. Now, Robin Kerrod, one of the world's leading writers on astronomy and space, has expertly updated this invaluable resource to include the most recent developments in astronomical research and technology. The Star Guide, Second Edition, present the latest findings from the world's astronomers, as well as by the Hubble Space Telescope and the Magellan probe to Venus. The Photographic coverage has been dramatically enhanced by the newest jaw-dropping views of the universe, which were captured by the latest generation of ground-based telescopes like the Very Large Telescope in Chile and space telescopes such as the Hubble at the Chandra Observatory. This thoroughly revised edition has also been reorganized to make it even more user-friendly. It retains the moon maps, the detailed maps of the monthly night skies, and the featured constellations that so

distinguished the first edition, as well as the immensely useful detachable planisphere. Each key constellation has become the focus feature that dissects the monthly sky where it is more prominent and best observed. A specially engineered and unique visual cross-referencing system provides easy access to information and to Explanations of core terms and concepts. Discussion and analysis of the astronomer's tools includes advice on the use of binoculars, telescopes, computers, and cameras. Feature boxes explain scientific theory and both recent and ancient astronomical history harking back to stargazing's mythological foundations in ancient Greece. Recent planetary discoveries from the newest space probes and landers bring us closer to the cosmos than ever before. Easy-to-follow star charts means that The Star Guide relies on the user's observations made with binoculars and the naked eye—you don't need to be an expert astronomer to interact with the heavens! Star sightings and an introduction to the galactic wonders of giant stars, comets, supermassive black holes, hurling asteroids, satellites, and other uncharted deep space territory are sure to inspire. Plunge headfirst into the fascinating minutiae of the celestial sphere. From the explosive birth of a star to an eclipse to a cloudy nebula, The Star Guide demystifies astronomy and gets you up close and personal with the awesome wonders of the universe.

Sky Vistas Craig Crossen 2012-12-06 Praise for Craig Crossen and Gerald Rhemann's, *Sky Vistas Astronomy* "This is a practical and stunningly beautiful guide whose core is a descriptive tour of the best celestial sights: open and globular clusters, nebulae, galaxies, and large areas of sky. The photos in black and white and color, are magnificent. The text goes beyond ordinary descriptions to tell the reader something about each object's nature." *Sky & Telescope* "Packed with information that I have encountered nowhere else in amateur-astronomy literature. *Sky Vistas* also includes 48 full-page color astrophotos by Gerald Rhemann, most of which are magnificent."

**The Observer's Guide to Astronomy: Volume 2** Patrick Martinez 1994-09-22 An authoritative guide, first published in 1994, packed with practical tips for all types and levels of observations in amateur astronomy.

*The Complete Guide to the Herschel Objects* Mark Bratton 2011-09-15 Sir William Herschel's contributions to astronomy during the late eighteenth century are unrivalled. His lasting legacy is his dedicated all-sky survey of star clusters and nebulae, and these objects continue to be among the most studied in the night sky. This unique book provides a complete re-examination of Herschel's entire catalogue of non-stellar discoveries, making it the most accurate and up-to-date reference of its kind. Retrace the footsteps of one of history's greatest astronomers and explore every one of Herschel's landmark discoveries, including those considered to be lost or non-existent.

Read detailed notes about each object's appearance and physical characteristics, and view hundreds of photos of the most intriguing Herschel objects, along with dozens of sketches of what is visible at the eyepiece. This superb book is a must-have for amateur astronomers seeking new and exciting observing challenges, and as the ultimate reference on the Herschel objects.

**Illustrated Guide to Astronomical Wonders** Robert Thompson 2007 Offers basic information about astronomy, including its terminology, the best equipment to purchase for stargazing, and images of over one hundred objects to view in the night sky such as star clusters, nebulae, and galaxies.

*Deep-Sky Wonders* Walter Scott Houston 2007-05-01 From 1946 to 1994, *Sky & Telescope* magazine featured a column called *Deep-Sky Wonders*, in which amateur astronomer Walter Scott "Scotty" Houston captured the wonder and delight of exploring the farthest reaches of the deep sky. In this book, *Sky & Telescope* contributing editor Stephen James O'Meara presents a month-by-month selection of Scotty's columns along with insightful observations and warm recollections of his time with Scotty. More than a field guide, *Deep Sky Wonders* is the work of a man who was a major influence on the development of amateur astronomy for nearly half a century.

**From Casual Stargazer to Amateur Astronomer** Dave Eagle 2013-10-16 The beginning astronomical observer passes through a series of stages. The initial stage is hugely exciting and gives the beginner a real buzz as he discovers some of the faint fuzzy objects, markings on the planets, rings around Saturn and the craters on the Moon. But as the novice observer progresses, he or she wants to know what more there is than looking at faint fuzzy blobs or indistinct planet markings. Many jump to the conclusion - wrongly - that they need to spend lots of money on expensive equipment to progress. "From Casual Stargazer to Amateur Astronomer" has been written specifically to address this group of budding stargazers. Astronomy is much more than a quick sightseeing tour. Patient observers who can develop their skills will start to appreciate what they are seeing, and will know exactly what to look out for on any particular night. And equally important, they will learn what not to expect to see. "From Casual Stargazer to Amateur Astronomer" is for those who want to develop observing skills beyond mere sightseeing, and learn some of the techniques used to carry out enjoyable - and scientifically useful - observations. It will also direct readers to make informed choices about what can be seen and when. This book is for anyone keen to develop their skills as an amateur astronomer.

**David Levy's Guide to the Night Sky** David H. Levy 2001-11-22 Introduces beginners to amateur astronomy, describes what to look for and when--beginning with the solar system and moving on to the stars--and offers suggestions for better observations.

Observer's Guide to Star Clusters Mike Inglis 2013-07-20 Amateur astronomers of all expertise from beginner to experienced will find this a thorough star cluster atlas perfect for easy use at the telescope or through binoculars. It enables practical observers to locate the approximate positions of objects in the sky, organized by constellation. This book was specifically designed as an atlas and written for easy use in field conditions. The maps are in black-and-white so that they can be read by the light of a red LED observer's reading light. The clusters and their names/numbers are printed in bold black, against a "grayed-out" background of stars and constellation figures. To be used as a self-contained reference, the book provides the reader with detailed and up-to-date coverage of objects visible with small-, medium-, and large-aperture telescopes, and is equally useful for simple and computer-controlled telescopes. In practice, GO-TO telescopes can usually locate clusters accurately enough to be seen in a low-magnification eyepiece, but this of course first requires that the observer knows what is visible in the sky at a given time and from a given location, so as to input a locatable object. This is where "The Observer's Guide to Star Clusters" steps in as an essential aid to finding star clusters to observe and an essential piece of equipment for all amateur astronomers.

*Globular Clusters - Guides to Galaxies* Tom Richtler 2008-11-23 The principal question of whether and how globular clusters can contribute to a better understanding of galaxy formation and evolution is perhaps the main driving force behind the overall endeavour of studying globular cluster systems. Naturally, this splits up into many individual problems. The objective of the Joint ESO-FONDAP Workshop on Globular Clusters - Guides to Galaxies was to bring together researchers, both observational and theoretical, to present and discuss the most recent results. Topics covered in these proceedings are: internal dynamics of globular clusters and interaction with host galaxies (tidal tails, evolution of cluster masses), accretion of globular clusters, detailed descriptions of nearby cluster systems, ultracompact dwarfs, formations of massive clusters in mergers and elsewhere, the ACS Virgo survey, galaxy formation and globular clusters, dynamics and kinematics of globular cluster systems and dark matter-related problems. With its wide coverage of the topic, this book constitutes a valuable reference of the scientific knowledge of the field.

**The Monthly Sky Guide** Ian Ridpath 2012-12-10 The Monthly Sky Guide offers a clear and simple introduction to the skies of the northern hemisphere for beginners of all ages. This revised and updated edition includes sections on observing the Moon and the planets with or without the aid of binoculars or telescopes, and a comprehensive Moon map.

**A Buyer's and User's Guide to Astronomical Telescopes and Binoculars**

James Mullaney 2013-10-10 Amateur astronomers of all skill levels are always contemplating their next telescope, and this book points the way to the most suitable instruments. Similarly, those who are buying their first telescopes - and these days not necessarily a low-cost one - will be able to compare and contrast different types and manufacturers. This exciting and revised new guide provides an extensive overview of binoculars and telescopes. It includes detailed up-to-date information on sources, selection and use of virtually every major type, brand, and model on today's market, a truly invaluable treasure-trove of information and helpful advice for all amateur astronomers. Originally written in 2006, much of the first edition is inevitably now out of date, as equipment advances and manufacturers come and go. This second edition not only updates all the existing sections of "A Buyer's and User's Guide to Astronomical Telescopes and Binoculars" but adds two new ones: Astro-imaging and Professional-Amateur collaboration. Thanks to the rapid and amazing developments that have been made in digital cameras - not those specialist cool-chip astronomical cameras, not even DSLRs, but regular general-purpose vacation cameras - it is easily possible to image all sorts of astronomical objects and fields. Technical developments, including the Internet, have also made it possible for amateur astronomers to make a real contribution to science by working with professionals. Selecting the right device for a variety of purposes can be an overwhelming task in a market crowded with observing options, but this comprehensive guide clarifies the process. Anyone planning to purchase binoculars or telescopes for astronomy - whether as a first instrument or as an upgrade to the next level - will find this book a treasure-trove of information and advice. It also supplies the reader with many useful hints and tips on using astronomical telescopes or binoculars to get the best possible results from your purchase.

**Star Clusters** Brent A. Archinal 2003-01-01

Patrick Moore's Astronomy: A Complete Introduction: Teach Yourself

Patrick Moore 2015-07-30 Astronomy: A Complete Introduction will ensure you recognize what you are seeing in the night sky. You will investigate the sun, moon, planets comets and stars and learn how to observe them. This comprehensive guide, complete with star charts, will map out the skies and allow you to impress your friends with your knowledge of the sky at night. Astronomy: A Complete Introduction includes: Chapter 1: Introducing Astronomy Chapter 2: The spinning sky Chapter 3: Sky-watchers Chapter 4: The astronomer's telescope Chapter 5: Into space Chapter 6: The Sun Chapter 7: The Moon Chapter 8: The Sun's family Chapter 9: The inner planets Chapter 10: The outer planets Chapter 11: Minor members of the Solar System Chapter 12: The stars Chapter 13: Pattern of stars Chapter 14: Double and variable stars Chapter 15: The life and times of a star Chapter 16: The Star-

clusters and nebulae Chapter 17: The depths of the universe Chapter 18: Into the future - life beyond the Earth

*Astronomy of the Milky Way* Mike Inglis 2018-04-05 This second edition of Mike Inglis's classic guide to observing the Milky Way in the Southern Hemisphere updates all of the science about the target objects with new findings from the astrophysics field. In addition, the book boasts a larger format with entirely re-drawn maps. Newly laid out for ease of use with an increased number of images in color, it updates and improves the first edition to remain the most comprehensive text on the subject. One of the wonders of the universe we live in is the Milky Way, and this book provides a wonderful tour of its highlights for amateur astronomers observing below the equator. In its pages, Southern Hemisphere observers interested in viewing our own galaxy's finest features will find every constellation that the Milky Way passes through with detailed descriptions of the many objects that can be found therein, including stars, double and multiple stars, emission nebulae, planetary nebulae, dark nebulae and supernovae remnants, open and galactic clusters, and galaxies. The book also details the one thing that is often left out of observing guides - the amazing star clouds of the Milky Way itself. Accompanying the descriptive text there are many star charts and maps, as well as the latest images made by observatories around the world and in space along with those taken by amateur astronomers. This second edition's updated scientific material and an easy-to-use layout perfect for many nights of fruitful observation.

**Sky Guide Africa South - 2020** Astronomical Society of Southern Africa 2019-11-01 Sky Guide Africa South 2020 is a practical resource for all astronomers, whether they be novice, amateur or professional. It covers the upcoming year's planetary movements, predicted eclipses, meteor showers - any events and facets of the night sky that change annually. Star charts plot the evening sky for each season, facilitating the identification of stars and constellations. The guide contains a wealth of information about the Sun, Moon, planets, comets, meteors and bright stars, with photos, diagrams, charts and images. There's also an excellent list of useful websites and a comprehensive glossary. This annual publication is an invaluable guide for anyone who has even a passing interest in the night skies of southern Africa and is '... an absolute must for first-time star-gazers and professional astronomers alike'. Sales points: Contains the latest, most-up-to-date information, packed with charts, illustrations, images, tables, etc. for quick reference, will appeal to a wide audience, from beginners to professionals, includes tips on basic night-sky gazing, excellent value for money.

**50 Things to see With a Telescope** John A. Read 2018-09-25 John A. Read covers everything needed to identify constellations, planets, stars, galaxies, nebulae and more. Inquisitive stargazers will find

planet hunting and star hopping easy with clearly plotted routes and images of the sky both as seen by the naked eye and detailed views from a telescope. Many fascinating cosmic objects can be easily spotted with the help of this book including beautiful Cassiopeia, regal Leo, the plentiful Kemble's Cascade, the explosive Crab Nebula, the rings of Saturn – even the moon! This easy to read, fully illustrated reference book will enrich every young person's experience of the skies above.

Compendium of Practical Astronomy Günter D. Roth 2012-12-06 It is a pleasure to present this work, which has been well received in German-speaking countries through four editions, to the English-speaking reader. We feel that this is a unique publication in that it contains valuable material that cannot easily-if at all-be found elsewhere. We are grateful to the authors for reading through the English version of the text, and for responding promptly (for the most part) to our queries. Several authors have supplied us, on their own initiative or at our suggestion, with revised and updated manuscripts and with supplementary English references. We have striven to achieve a translation of *Handbuch für Sternfreunde* which accurately presents the qualitative and quantitative scientific principles contained within each chapter while maintaining the flavor of the original German text. Where appropriate, we have inserted footnotes to clarify material which may have a different meaning and/or application in English-speaking countries from that in Germany. When the first English edition of this work, *Astronomy: A Handbook* (translated by the late A. Beer), appeared in 1975, it contained 21 chapters. This new edition is over twice the length and contains 28 authored chapters in three volumes. At Springer's request, we have devised a new title, *Compendium of Practical Astronomy*, to more accurately reflect the broad spectrum of topics and the vast body of information contained within these pages.

*The Beginner's Guide to Astrophotography* Mike Shaw 2023-06-20 Now everyone can learn to take great pictures of the cosmos! The night sky is filled with immense beauty and mystery, and it's no wonder so many photographers want to learn how to take great photographs of all it contains: the moon, stars, planets, galaxies, and beyond. But for photographers just getting started photographing the cosmos, some books veer into "advanced" territory way too quickly, filled with difficult theory and long, expensive lists of "must-have" gear. If you're just starting your adventure in astrophotography, *The Beginner's Guide to Astrophotography* is the book for you! Photographer Mike Shaw teaches you everything you need to know to capture great images of the night sky--without breaking the bank or needing an advanced physics degree. In this book, you'll quickly gain an understanding of the night sky, then dive into gear and settings. Regardless of the camera you own (smartphone, DSLR, or mirrorless),

you'll be able to capture shots you love. You'll learn all about the gear you absolutely need (and what you don't) as well as the accessories that will make your astrophotography life easier. Then you'll dive into camera technique: exposure settings, focusing tricks, and composition techniques to get the shot. You'll also learn about the best apps for astronomy, weather, planning, and navigation. Mike walks you through how to plan a shoot, set up for it, and capture your images. Finally, you'll learn the post-processing techniques that will have your images looking their best. You'll learn how to photograph: \*

The moon (full, crescent, lunar eclipse, solar eclipse) \* The Milky Way (the core, the central band) \* Constellations (Orion, Perseus, Scorpius, etc.) \* Asterisms (Big Dipper, Summer Triangle, Orion's Belt, etc.) \* Star trails \* Planets (Venus, Jupiter, Saturn, Mars) \* Aurora Borealis \* Meteors \* Satellites (such as the International Space Station) \* Nebulae \* Star Clusters \* Galaxies \* Comets \* And more!

Table of Contents Chapter 1: What Is Astrophotography, Exactly? Chapter 2: Understanding the Night Sky for Astrophotographers Chapter 3: Astrophotography Equipment, Setup, and Technique Chapter 4: Landscape Astrophotography Subjects Chapter 5: Deep Sky Astrophotography Subjects Chapter 6: Choosing Where and When to Shoot Chapter 7: Synthesis: Your First Astrophotography Session Chapter 8: Making Your Astrophotography Images Look Amazing Chapter 9: Advanced Astrophotography

**Star Clusters and How to Observe Them** Mark Allison 2006-04-04

Astronomy enthusiasts will all appreciate the detailed yet easily-assimilated description of star clusters, how they were formed as our Milky Way galaxy, how they evolved, and how they are classified. The latest research has revealed a vast amount of fascinating information about the clusters, along with some spectacular photographs. Modern commercially-made telescopes enable amateur astronomers to see a surprising amount of detail, and to record - using CCD cameras, video, webcams or even film - some remarkably beautiful and detailed images. Contained here also is detailed information on using refractors, reflectors, and, of course, Meade and Celestron's ubiquitous range of computer-controlled SCT telescopes.

**Uranometria 2000.0: Deep sky field guide** 2001

**Galaxies and Other Deep-sky Objects** Gary Mechler 1995 Filled with concise descriptions and out-of-this-world photography, the National Audubon Society Pocket Guide to Galaxies & Other Deep-Sky Objects is designed to be compact enough to literally fit into any star-gazer's back pocket. This streamlined volume contains: an easy-to-use field guide covering more than 70 deep-sky objects; a complete overview of the evolution of galaxies, nebulae, quasars, star clusters and other objects in space that make up our universe. This pocket guide is packed with information; abundant color photographs and images capturing the magnificence of the stars that compose various deep-

space phenomena; text detailing the different types of objects in space, specific names and cataloging of each space phenomena, information on measuring each object's distance and location in the sky and the minimal optical aid needed to observe a particular deep-space matter. From casual star-gazers, budding astronomers to the more experienced, the National Audubon Society Pocket Guide to Galaxies & Other Deep-Sky Objects is an excellent and convenient reference guide to bring along when skywatching.

*Astronomy Hacks* Robert Bruce Thompson 2005 *Astronomy Hacks* begins the space exploration by getting you set up with the right equipment for observing and admiring the stars in an urban setting. Along for the trip are first rate tips for making most of observations. The hacks show you how to: Dark-Adapt Your Notebook Computer. Choose the Best Binocular. Clean Your Eyepieces and Lenses Safely. Upgrade Your Optical Finder. Photograph the Stars with Basic Equipment.

**The Bedford catalogue** William Henry Smyth 1844

**Star Trek the Official Guide to Our Universe** Andrew Fazekas 2016 The characters of the Star trek television programs and movies go boldly among the stars-- but how much of what they tell us is accurate? Fazekas compares the Federation's technology with our own, and provides scientifically accurate accounts of the realms and star charts that the Enterprise uses to explore the solar system, nebulae, and more.

*The Deep-sky Field Guide to Uranometria 2000.0* Murray Cragin 1993

The Herschel Objects and How to Observe Them James Mullaney 2007-08-22 Amateur astronomers are always on the lookout for new observing challenges. This exciting book retraces the steps of the greatest visual observer and celestial explorer who ever lived. This is a practical guide to locating and viewing the most impressive of Herschel's star clusters, nebulae and galaxies, cataloging more than 600 of the brightest objects, and offering detailed descriptions and images of 150 to 200 of the best.

**The Complete CD Guide to the Universe** Richard Harshaw 2007-09-06 This is the largest and most comprehensive atlas of the universe ever created for amateur astronomers. With finder charts of unprecedented detail, in both normal and mirror-image views, and an extensive list of 14,000 objects, it provides a detailed observing guide for almost any practical amateur astronomer, up to the most advanced. Spanning some 3,000 pages, this is a project that is possible only on CD-ROM. The CD-R pages are extensively indexed and referenced for quick location of objects. The accompanying book gives an introduction to the Atlas, showcases the maps, describes the CD-R content and organization, and includes various appendices.

Sky Guide Africa South 2022 Astronomical Society of Southern Africa 2021-11-01 *Sky Guide Africa South - 2022* is a practical resource for all astronomers, whether novice, amateur or professional. It covers

the upcoming year's planetary movements, predicted eclipses, meteor showers - any events and facets of the night sky that change annually. Star charts plot the evening sky for each season, facilitating the identification of stars and constellations. The guide contains a wealth of information about the Sun, Moon, planets, comets, meteors and bright stars, with photos, diagrams, charts and images. Sales points: Contains the latest, most-up-to-date information; packed with charts, illustrations, images, tables, etc, includes tips on basic night-sky gazing, excellent value for money, updated layout - now more user friendly.

Astronomical Applications of Astrometry Michael Perryman 2009 An authoritative account of the contributions to science made by the Hipparcos satellite, for astronomers, astrophysicists and cosmologists.

Herschel 400 Observing Guide Steve O'Meara 2007-06-14 Steve O'Meara's guide to the Herschel 400 for amateur astronomers.

Illustrated Guide to Astronomical Wonders Robert Thompson 2007 With the advent of inexpensive, high-power telescopes priced at under \$250, amateur astronomy is now within the reach of anyone, and this is the ideal book to get you started. The Illustrated Guide to Astronomical Wonders offers you a guide to the equipment you need, and shows you how and where to find hundreds of spectacular objects in the deep sky -- double and multiple stars as well as spectacular star clusters, nebulae, and galaxies. You get a solid grounding in the fundamental concepts and terminology of astronomy, and specific advice about choosing, buying, using, and maintaining the equipment required for observing. The Illustrated Guide to Astronomical Wonders is designed to be used in the field under the special red-colored lighting used by astronomers, and includes recommended observing targets for beginners and intermediate observers alike. You get detailed start charts and specific information about the best celestial objects. The objects in this book were chosen to help you meet the requirements for several lists of objects compiled by The Astronomical League (<http://www.astroleague.org>) or the Royal Astronomical Society of Canada (<http://www.rasc.ca>): Messier Club. Binocular Messier Club Urban Observing Club Deep Sky Binocular Club Double Star Club RASC Finest NGC List Completing the list for a particular observing club entitles anyone who is a member of the Astronomical League or RASC to an award, which includes a certificate and, in some cases, a lapel pin. This book is perfect for amateur astronomers, students, teachers, or anyone who is ready to dive into this rewarding hobby. Who knows? You might even find a new object, like amateur astronomer Jay McNeil. On a clear cold night in January 2004, he spotted a previously undiscovered celestial object near Orion, now called McNeil's Nebula. Discover what awaits you in the night sky with the Illustrated Guide to Astronomical Wonders.

**The Amateur Astronomer's Guide to the Deep-Sky Catalogs** Jerry D.

Cavin 2011-10-27 Every amateur astronomer has at least heard of the many different catalogs of deep-sky objects; the most well known are the Messier, the Caldwell, the Herschel, and the NGC. All of these catalogs are, in general, readily available, but very few amateur observers are in a position to choose the best catalog for their particular deep-sky observing program, know how to use the catalog, or even realize just how many there are out there! The Amateur Astronomer's Guide to the Deep-sky Catalogs is a single compilation of the historical and modern astronomical deep-sky catalogs. It discusses their origins, compares what's in them, explains how to interpret the data they contain, and even outlines how readers can create suitable 'custom' catalogs for their own use. The last section provides a set of three deep-sky catalogs created by the author, for observers of different levels of experience, from newcomer to expert.

Astronomy 1997

*Exploring the Universe: A Laboratory Guide for Astronomy* Mike D.

Reynolds 2015-01-01 Astronomy is a fun and challenging science for students. This manual is intended for one- and two-semester astronomy courses and uses hands-on, engaging activities to get students looking at the sky and developing a lifelong interest in astronomy.