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A Skywatcher's Year

Have you ever wondered what that bright point of light twinkling near the horizon is, or just when you can expect to see the best shooting stars of the year? *A Skywatcher's Year* has answers to these and other questions about what is visible in the night sky throughout the year. Through 52 essays, *A Skywatcher's Year* guides readers to celestial events and phenomena that occur or are visible with the naked eye and binoculars for each week of the year. It acquaints readers not only with up-to-date astronomical information on stars, nebulae, meteors, the Milky Way, and galaxies, but also conveys the beauty and wonder of the night sky. Covering both the Northern Hemisphere and the Southern Hemisphere, *A Skywatcher's Year* helps readers find prominent stars and constellations, bright star clusters, nebulae, and galaxies, and explains how and when to observe prominent annual meteor showers.

Jeff Kanipe began his career as a science journalist, writing scripts for the astronomy radio program *Star Date*, which was heard on radio stations across the United States and Canada. He has many years of writing experience, first with *Astronomy* and more recently with *Sky & Telescope*. Based in Dallas, Texas, Jeff Kanipe is a prolific writer of articles and features on astronomy.

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For my mother and father, who were always my pole stars,
and for my two daughters, Hayley and Carly, who will one day be pole
stars themselves.

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Foreword

The stars are presented to you here as you'll come to know them in the heavens, one by one and in easily identified patterns, as they appear with satisfying orderliness in the course of a single year. The earliest skywatchers must have come to know the stars in just this way, constellation after constellation, with each celestial grouping identified with the sights, smells and sounds of the changing seasons.

Today, we know the stars move across the sky's dome each night because Earth spins on its axis once a day. We know that new stars continually appear in the east because our vantage point on the Galaxy shifts, as we orbit the Sun once a year. Skywatchers now have the power to see the stars – with ordinary binoculars, or sophisticated telescopes and photographic equipment – in ways that would have astounded our ancestors. Our cosmology has taken us out of the center of everything, and made us inconceivably small in contrast with the rest of the universe. We live in a universe of mind-boggling collisions, explosions, and energies. And yet, in a way that binds us to the first skywatchers, the stars still seem a part of us, and we a part of them.

Even in our modern world, where lights of the cities often obscure the stars, it seems that nearly everyone has a 'gene' for astronomy. Thus to those of us already acquainted with astronomy, there is only one pleasure greater than skywatching, and that is to encourage someone else to look up! It's a pleasure to commend this book to you, and to imagine your going outside with it tucked under your arm, to begin your own exploration of the boundless sky.

Deborah Byrd
Earth & Sky Radio Series

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Jeff Kanipe

Author's Note

This book is based on a series of weekly columns I wrote in 1992 and 1993 during my editorship of *StarDate* magazine, which is still published by the University of Texas' McDonald Observatory. The column, called 'Skywatch,' was distributed to about 20 or 30 newspapers in the United States by the Associated Press, but found its greatest readership by far on the Internet. I had no idea how popular 'Skywatch' was until I announced one day that I was going to stop writing the column so I could devote more time to my editing duties. In less than three days, I received over 500 emails from around the world imploring me to reconsider. I did, at least for another year, when, exhausted, I threw in the towel. I avoided logging on for a month.

In their original form, the 'Skywatch' columns were brief essays describing some interesting sky phenomenon or event for a particular week in a particular year. In this new incarnation, *A Skywatcher's Year* may be considered an outdoor program guide of natural sky events that are visible every year. In this respect, it differs from astronomical almanacs, which emphasize one-time events happening in a specific year for specific locales. I've listed some astronomical almanacs in a list of Further Reading at the end of this book, any one of which would make an excellent companion to *A Skywatcher's Year*.

Another difference between this book and the column is that I've endeavored to describe celestial phenomena visible not only in the Northern Hemisphere but in the Southern Hemisphere as well. The observability of the sky in both hemispheres, however, is latitude dependent. Hence, people living near the equator are unlikely to see

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aurorae or noctilucent clouds, while those in the high northerly latitudes will have a poor view, if at all, in the direction of the center of the Milky Way. Nevertheless, in each essay I've tried to offer something for everyone no matter what part of the world they live in. The night sky truly is a moveable feast of wonders, both by season and by latitude.