



## Preface

*We are stardust,  
We are golden,  
We are billion year old carbon,  
And we got to get ourselves back to the garden.*

—“Woodstock” by Joni Mitchell

I’m getting old.

I don’t know how it happened.

At one time, I was young, physically fit, mentally active, and building a career in engineering. Then I got married. Had kids. My wife and I raised two fine boys who have become two fine men. I retired early at age 52, having worked 32 solid and productive years for the federal government. My post-retirement life has found me working as an engineering consultant, a swimming coach, and guitar teacher, and now as an author.

My parents gave me my first telescope for Christmas when I was 11 years old. Many telescopes have passed through my hands, as backyard astronomy has been a passion for over 50+ years.

In my 55th year, the first signs of my growing old began to reveal themselves. Reading books became arduous as my eyes would grow weary. My ophthalmologist told me I needed bifocals. Strike one.

My physician told me I had high blood pressure and cholesterol. I had to start taking pills every day. My doctor told me I had to lose weight. No more fried chicken, apple pie a la mode, french fries, potato chips, cheese nachos, and other greasy gut-bomb foods that are so comforting. Strike two.

Strike three came on a crisp October evening. Unknown to me, my physical strength was slowly waning. The sky was crystal clear. There was a faint crescent Moon. A perfect night for my big 11" Schmidt-Cassegrain, weighing in at a hefty 92 lb including tripod.

I traded for this behemoth while suffering an extreme case of aperture fever. A 3.5" Questar for a Celestron 11 GPS, a straight up deal. And I have never regretted that deal. As beautifully made as the Questar is, it can never show the deep sky delights that 11 inches of aperture can provide.

This big instrument is the most fun telescope I have even owned, with its full GoTo capability and ample aperture. But it weighs 92 pounds!

In my younger days, moving this behemoth from the living room onto the deck of my house was easily accomplished. On this night, the 11 GPS seemed to have gained weight. It felt especially heavy. I maneuvered the telescope through the door onto the deck with a degree of difficulty that I hadn't experienced previously. As I struggled to set the telescope down into its usual position on the deck, one of the legs of the tripod tangled with a leg of the picnic table. I stumbled. I fumbled. I dropped the telescope onto the deck! I stood speechless and in shock over my telescope in horror. My wife came out to see what was wrong, having heard the loud crash of the scope hitting the deck from the den. I was still frozen, standing over my beloved scope, unable to comprehend what had just happened.

Fortunately, the only casualty of the incident was a cracked aluminum corrector plate cell on the telescope. The Schmidt corrector and the secondary mirror were intact, and in fact the secondary was still in alignment. Lucky me. A quick call to Celestron the next day and \$100 later, I was able to obtain a new corrector plate cell and repair the telescope. Whew! (Figs. 1, 2, and 3).



Fig. 1 The author's Celestron 11 GPS



Fig. 2 The cracked Schmidt corrector plate cell



Fig. 3 Another angle of the cracked Schmidt corrector plate cell

This accident taught me a lesson. I had to start making adjustments if I wanted to continue to pursue astronomy as a lifelong passion.

My eyes aren't what they used to be. I wasn't as strong as I used to be. My sense of balance is starting to be questionable. Cold nights seemed colder. Warm nights seemed warmer and sweeter. Mosquitoes seemed to have found me tastier. And the

simple act of bending over to peer through the eyepiece was becoming problematic due to a somewhat bulbous belly that had started to form about my midriff.

Two years ago, I complained to my ophthalmologist that I thought I needed new glasses. He asked how did I know. I told him when I played golf (another passion of mine!), I couldn't see the flight of my golf ball until it splashed into the water hazard! Haha! Unfortunately, his examination revealed that at age 62, I had the beginnings of cataracts. Strike four! (wait a minute, that's not right....)

How am I going to survive this aging process and still pursue my passion for astronomy? Thus, the genesis that led to writing this book.

Another theme contained in this book is the need for older people to socialize, and astronomy clubs and star parties provide socialization opportunities.

My involvement with my astronomy club, the Shenandoah Astronomical Society, increased my interaction with the public. One of the main goals of my club is public outreach, especially reaching out to introduce astronomy to young people. When did young people become so young? When did I get so .... uh..... distinguished?!? Many of my friends in the club are like me, retired and still in love with astronomy. Nothing gives us a greater thrill than having a young girl or boy peer through our telescopes and exclaim "WOW!"

It reminds me of one extraordinary night, when I was in my thirties and my older son was a mere four years old. I was out on my back deck of our house, with my trusty Celestron C-5 telescope set up and viewing the Great Orion Nebula.

My first born opened up the sliding glass door and asked "What are you doing, Daddy?"

"I'm looking through my telescope at the Great Orion Nebula," I replied.

"Can I see?" he asked.

Thus began a wondrous evening with my young son. Propping him up, he got his first views of M42, Mizar and Alcor in Ursa Major, and the giant planet Jupiter through my telescope. The viewing session ended as a slow moving cloud front crept in and eventually obscured the night sky.

But my son's enthusiasm and curiosity about astronomy was forever born that night, as he and I brought in my telescope equipment and spent the rest of the evening looking at the pictures of galaxies in Timothy Ferris' *Galaxies* and back issues of *Astronomy* and *Sky and Telescope* magazines.

My son has grown up to be a fine man. What happened to his interest in astronomy? Look at the covers of all of my books. Adam Chen has been the graphics designer for every book of mine. He has worked as a support contractor for NASA. He has helped me on all my books by providing drawings, illustrations, graphics, and cover layouts, and most importantly inspiration.

Another favorite memory of mine, involving my younger son. When Alex was four years old (there seems to be a pattern here!), I took him on an across-the-country journey to attend the Riverside Telescope Makers Convention, known as RTMC, near Big Bear Lake in the San Bernardino Mountains of California. We flew into Ontario Airport and I drove us to Big Bear Lake in a rental car. The first night at RTMC, my son and I were treated to a view of the Whale Galaxy (NGC 4631) and the Hockey Stick Galaxy (NGC 4656) through a magnificent 24-in.

Dobsonian telescope set up near the center of the telescope field. We talked with many fellow RTMC attendees that night, and saw many other celestial wonders through other telescopes. My son was absolutely thrilled as the first night drew to a close on this astronomy adventure.

The next morning, as my son and I marched up the hill to attend the vendor sales and swap meet that RTMC schedules on Saturday morning, a very unusual weather event took place. On Memorial Day weekend, the unofficial beginning of the summertime season, snowflakes fell. It was snowing at RTMC! My son didn't care, this was an adventure and he was his Dad! After RTMC, I drove my son down to Anaheim and took him for a day at Disneyland before we returned to the airport to fly home.

My younger son has grown up to be a fine young man also. Through his years growing up, he and I attended many more star parties together. He went to the Ohio State University and earned a bachelor's degree in aeronautical engineering and is now completing his master's thesis. He fell in love with my 4-in. brass Renaissance telescope, so on his sixteenth birthday, I gave him the telescope as a gift. Alex Chen uses "Brassy" to this day.

If you read my biography, you will notice that I have spent parts of three decades working part time at two different telescope stores in the Washington, D.C. area. There are many people who I have met and have purchased equipment from me at the North East Astronomy Forum over the past 15 years. Many of my insights and recommendations on telescope equipment are drawn from my experience working with both experienced amateur astronomers and people new to the astronomy hobby. Two of my previous books, *The Vixen Star Book User Guide* and *The NexStar Evolution and SkyPortal User Guide* are the result of my expertise gained from selling and teaching the use of this equipment to customers.

I expect some of my equipment recommendations in this book will cause some controversy and start discussions amongst my peers. That's a good thing. The one thing I have discovered over the years is that there is no singular answer that applies to everybody.

This is the story of how I came to write this book. Aging is inevitable. But with the right lifestyle adjustments, this wonderful activity of backyard astronomy is survivable. I will continue to make memories with my sons and my friends and to show the next generation the wonders of the universe from a backyard telescope.

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