## THE LONG AND WINDING ROAD

**Mike Simonsen** 

Driving to the observatory through the Michigan countryside gives me plenty of time to reflect on the long and winding road that has brought me to this point in my life. Leaving my urban neighborhood of closely packed homes, I pause at the main road and gaze west into the sunset. I remember the kid who raced home to get to dinner on time, after spending hours in the library reading every astronomy book and periodical I could lay my hands on. I usually read the magazines from cover to cover first, because we weren't allowed to take them home. Then I'd hop on my bicycle with another Patrick Moore book in my bag and race to make it home before the streetlights came on.

It was instilled in me early on, that to take notes and record everything I saw carefully and accurately was the only way to be a good observer. Those magical popular astronomy books by Moore and James Muirden were probably the biggest influence in my life as an amateur astronomer. A couple of years ago I discovered my notebooks from this time, whilst rummaging through boxes I had in storage. I was surprised at how faithfully I had recorded sunspots, lunar craters and the positions of the Galilean satellites from night to night with my 70mm refractor.

I head east for a mile or so and come to the road that leads north towards the countryside. The sharp left turn I make here is analogous to the sharp left turn I took in life entering college. After spending my high school years focused on mathematics, physics and music I came to a crossroad in life. Weeks before leaving home to study electrical engineering at Michigan Tech, I decided to turn down financial assistance and a relatively certain future to study music at another university.

I was already playing in a band professionally, and my decision was no doubt influenced by the fact that young girls found musicians much more exciting than engineers! Playing saxophone and keyboards in nightclubs until the wee hours of the morning five nights a week, left little time for astronomy. My *observing* was soon limited to pointing out constellations and planets to girls I was trying to impress. I spent the next twenty years playing jazz, rock and roll, blues and country music, and thought little about my astronomical interests.

I follow this road north out of the city for quite a while, until I come to a small town typical of the villages in this part of the country. At the north end of town I make another left turn, and head west through farm fields. Similarly, life took another turn in the late 80's for me.

Through an unexpected chain of events, I found myself turning my passion for gardening into a profession. Eventually, I retired from the music business and started my own landscape design/build firm. I now had the time and money to purchase a *big* telescope and pursue my long dormant interests in astronomy.

I wasted no time in reviving my hibernating enthusiasm for astronomy, and observing variable stars. I joined the AAVSO, and my local astronomical society, and soon after, started a variable star sub-group. The sub-group eventually evolved into an independent group of observers we call Sirius Astronomy. We have our own website athttp://sirius-astronomy.com/ and an observing site with three domed observatories, and a collection of telescopes. We



Mike in his observatory with his telescope

don't bother with meetings very often. The main focus of the group is observing astronomical objects, rather than talking about them.

Another quick turn to the north, past an apple orchard, and I find myself under a dark enough sky to see the evening's first bright stars through the windows of my car. I'm getting closer to my destination.

The single most important factor in my rapid development as a variable star observer has been the Internet. I was fortunate to be mentored through email by two of the world's leading observers, Gary Poyner and Gene Hanson. They graciously shared the wealth of their experience and knowledge, and saved me countless hours, learning things the hard way.

Our informative, lively, and quite often humorous discussions, led to the creation of an informal email discussion group that includes many of the world's leading visual observers of cataclysmic variables. I have friends all over the planet now, who share similar interests. Many of them I have never met face to face. It was a great thrill for me to finally meet Hazel McGee and Rod Stubbings in Hawaii, after having known them through email only. One of the main topics of discussion has always been the inadequate, or non-existent, charts for many of the CVs we were observing. This eventually led to my other astronomical passion, the creation of accurate sequences and charts for variables.

I turn left onto the road that is the last leg of my dark sky journey. There is an old schoolhouse at the corner that has been converted into a home. Decades ago these little one-room schoolhouses were the centres of learning for kids in the country.

I soon learned that making variable star charts with accurate sequences was not as easy as it looks to the uninformed amateur observer. I was fortunate enough to get in touch with Arne Henden and Bruce Sumner a few years ago. They took me under their wings and taught me more than I ever wanted to know about photometry and sequences.

It still tickles me to be consulting with Arne, an astronomer at the US Naval Observatory in Flagstaff, regarding observing targets for a metre class telescope, with a state of the art CCD and the world's leading photometrist at the controls.

I now have hundreds of charts and sequences published on our website based on Henden photometry, and am currently working with John Toone, Roger Pickard and Gary Poyner to utilize this information to create BAAVSS charts for ROP stars.

I turn in the driveway that leads to the observatory. The dome is located on the homestead of my friends Dawna and Dennis. At star parties and gatherings, I am often introduced as *Mike*, *the guy who lives in our back yard*, by them.

I park the car and step out into the night air. Most nights, all the stars in the Little Dipper are plainly visible and the dark rift in the Milky Way is quite obvious before eyes have become dark-adapted. M31 is often an easy naked eye object.

The observatory is a seven-foot diameter fibreglass cylinder, with a manually rotated fibreglass dome. It houses an equatorially mounted 12" LX200. I make no apologies for using a go-to telescope and punching in coordinates to locate the fields of my programme stars. I have done plenty of star-hopping in my time, and not having to handle a metal telescope at



The 12" LX 200 in Mike's Observatory

ambient winter temperatures that can exceed -30C is a distinct advantage in my opinion.

On average nights my limiting magnitude is 15.5V or better. I have seen 16th magnitude and fainter on exceptional nights. My primary programme stars are CVs that outburst at 15V or brighter. I also observe about 500 LPVs with faint minima more or less regularly.

My favorite objects are CVs that I can follow through most, or all of their cycle, and which are fairly active. These would include **KT Per, TZ Per, Z Cam, YZ Cnc, AT Cnc, SY Cnc, SU UMa, ER UMa** and **AB Dra**. Some stars I like to visit because of the field: **CY Lyr** is in the midst of a nice cluster, and the Mira **RX Lyr** has the ghostly smoke ring of M57 in the same low-power field of view.

Observing sessions are usually two to eight hours long, depending on the weather and the seasonal variation in the length of night. Driving half an hour each way, my goal is always to observe as long as I can. I've averaged about 130 nights per year for the last three years. Needless to say, I have a very understanding and supportive wife.

It's not unusual for me to watch dawn turn to sunrise as I drive home, sometimes faster than I should, anxious to report outbursts observed during the night.

In many ways I have come full circle, only now I feel like a kid trying to get home in time for breakfast.

