FROM 'SIGNALLING TO MARS' TO MAKING VARIABLE STAR OBSERVATIONS - A NEW OBSERVER'S STORY

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My interest in astronomy which started with Dick and signaling Mars in Arthur Ransome's *Winter Holiday*, was further fed by my friendship with Margaret Evershed, the second wife of the astronomer John Evershed (1864-1956), and, related to Astronomy, a year's passion with Geology at school.

It lay dormant through years of Art College and bringing up a family, until a chance siting of astronomy telescopes in a photography shop was followed, soon after, by the purchase of an ETX 90 EC; I also joined the Southampton Astronomical Society (both helpful and inspiring).

I struggled to point the ETX in the right direction, catching a fleeting glimpse of Saturn. It was much easier to find objects with binoculars. I often just searched the night sky with my bird-watching 8.5x44s, and planisphere, learning my way around.

I tried with varying success to use the setting circles. I was thrilled to find the Andromeda galaxy, and something very faint and fuzzy in Virgo, and followed the comet Ikea-Zhang on clear nights. I started chopping down trees in the garden to open out the sky. From the start I had decided that I was most interested in Deep Sky objects.

A breakthrough came with a copy of Penningtons *Year round Messier Marathon* and a Telrad finder. As yet, I have not had such success finding things even with my 10" LXD55 GoTo, admittedly in storage for most of this year due to our move from the New Forest to the shore of Loch Fyne, Scotland. At the beginning of this year I realised that my eyes, and or my brain, had learnt to see or recognise more than before. On a clear night I thought I detected a faint cloud band on Saturn, and caught a fleeting glimpse of the Cassini division. I saw an extra grey band under the two darker bands on Jupiter, and with higher magnification, the flattening of the poles. Faint fuzzies were more easily recognised. A dark site in Suffolk brought more finds.

My particualar interest in variable stars started after reading *Starlight Nights* by Leslie C Peltiers. Next, I read Melvyn Taylor's chapter on variable stars in *The Observational Amateur Astronomer*. Another general book I found very useful (as a beginner), with a chapter on variable stars was *Through the Telescope* by Patricia L Barnes-Svarney and Michael R Porcellino.

Variable stars seemed a way to give more direction to my observing, and to learn the sky really well, which could lead also to recognising other things. I like the feeling that, in some infinitesimal way, I might be involved in contributing towards some much larger understanding. When I heard about the BAA workshops I was keen to go anyway, but to Cambridge particularly because of Karen's talk *Why Observe Variable Stars*, which was most timely for me. When she mentioned the *Mentor Scheme* I was immediately interested, as I had been wanting to observe variable stars but not sure how to go about it. I approached Karen after the talk, and she offered to be my mentor.

We both thought that I would find it easier to start with binoculars. As I didn't have a computer it was a great help that Karen sent me lots of charts from Melyvn's Binocular Priority

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List, which she had downloaded from the internet. She also sent some Variable Star Circulars (which included the priority list) and asked Roger to send me the chart list, report forms and the leaflets *An Introduction to the Variable Star Section* and *Making Visual Observations for the Variable Star Section*, the latter particularly useful. I immediately started my observing log book.

I found it easier than I had expected to find the stars. First, I compared the variable star charts with *The Sky Atlas 2000*, drawing on the charts in 2B pencil (easy to rub out) whatever was necessary to fix their position in my mind, and make it easy to double check the chart if I couldn't find the variable star. I tried to get a firm idea of where to look and to choose the ones I thought would be easiest to find.

The first time I thought RS Cancri was similar to comparison star G (at magnitude 5.9), maybe slightly dimmer, but slightly brighter than F (at magnitude 5.8), eventually deciding it was the same as F. This entailed much to-ing and fro-ing, in and out of focus; the whole process took about 40 minutes! The difficulty might have been because of F's close proximity to E. Karen reminded me to also remember the Purkinje effect, which because red light builds up on your retina, causes red stars to look brighter than they are. The way to minimise this is to try not to stare too long at the star, and to use averted vision.

The original plan was for Karen to get some new binoculars (as hers had become unusable since she dropped them!), and observe the same stars to compare results, but due to an unexpectedly heavy workload at that time, she was unable to do this immediately, and so she checked visual observations reported to the Japanese Organisation VSNET, which worked just as well (it would have been better to use BAA observations, of course, but these were not yet available on-line, and the VSNET results provided an instant rough guideline as to the accuracy of my results). These results seemed to suggest that my estimates were within the range expected for my first star RS Cancri, and this continued with my subsequent observations, which was most encouraging, especially when sometimes the differences seemed to be so slight they were difficult to pin down.

I was worried that it seemed to take me a while to get started ,and felt greatly encouraged when Karen said that I'd got going quickly (she'd averaged a star every half hour when she first started!), and she encouraged me to continue with RS Cancri and see if I could add another star or two to my list. I slowly built up to five stars with the addition of VY Ursae Majoris, Mu Cephei, UU Aurigae and CH Cygni, but I still took a long time on each one, which I hope will improve. I had the most trouble with Mu Cephei, which was too low in the sky.

My last observation was on the 19th May, 2003. Since then, I have been interrupted by our move to a small flat in Largs, where I did not find it so easy to observe from; this was made worse by the brighter Scottish summer nights. Finally, we moved into our new home on Loch Fyne, Argyll, with darker skies frustratingly clear for the first busy week of our move. I look forward to continuing once properly settled. I sent my records to Karen and she thought them reliable enough to send to the database. She prepared them and had me check them over before finally submitting them. She also checked the web for Astronomy Societies in Scotland for me to join.

I feel the VSS Mentor System has given me direction, and the means and encouragement, which gave me the confidence to get started and a way of checking my results are on track, and a friend.