McCarthy Chronicals - The Messier Marathon
The Tortoise and the Hare
March 16, 2002

Jupiter was jittery in the cold night air. The low pressure system that had clouded the sky all day was being rapidly pushed out by a cold northwesterly wind, making the freezing temperatures outside the observatory feel all the more uncomfortable. Rule number one – if you want stable imaging, set up your telescope out of the wind.

This was Messier night at the JJMO and I had brought my 10 inch Newtonian reflector down to the observatory to test my "Go To" ratio. I would search the sky by eye and star chart. Those inside at the main 16 inch Schmidt Cassegrain telescope would hop from object to object using the exquisite "The Sky" program that delivers any one of hundreds of thousands of pre-programmed objects to the user at the click of a mouse.

I needed a trip to Jupiter to align my finder before I started.

As always, the sight of Jupiter and its Galilean moons was awesome, despite the chill that was creeping under my coat and sweater. Once alignment was complete, I took refuge in the observatory control room to warm up. The group inside had bagged 10 of the Messier's. I was still working on my first. And the insiders didn't appear to be nearly as cold as I was.

By the time I was ready to get back out, Andromeda Galaxy, M-31 had long vanished below the western horizon.

Well, The Great Orion Nebula, M-42, was still in the sky, albeit low. But just as I lined up on it, it faded away into a line of passing clouds. Drat. I needed a new game plan. In desperation, I looked down the finder and slewed the telescope to the Pleides, M-45. One! It was cold, I needed a new strategy and a hot cup of coffee – I fled inside. By the time I had restored feeling to my hands and toes, the group at the telescope had slewed to over 20 of the Messier objects. It was clear who was the tortoise, and who was the hare. I needed to get to work.

I decided to set my sights on M-81 and M-82. Located high in the northern sky, I felt that they would be an easy catch. Find the Big Dipper, go a little east of the pointer stars and then go a little north and… YES!! I had them. Both dangling in front of me in the same field of view! I was elated. M-81 is a beautiful spiral galaxy, shining at magnitude 8.5. M-82 is an irregular galaxy, listed as being a magnitude 9.5 object. Its cigar shape was clear and the fact that I saw both objects was a testimonial to the clarity of the sky. And the wind had abated somewhat. "Three!" I announced. "Forty", came the response from inside the dome.

Gamely I searched for my next target, M-51, the Whirlpool galaxy, hanging slightly south and west of the end star of the big dipper. The cold crept in, my finder failed me and my knees began to buckle from crouching under it, vainly trying to find some sign of the elusive galaxy. Frustrated, I gave up. I needed a new game plan and another cup of coffee. "Fifty" was the count from inside.

After reflecting for a moment, I knew I was lost. I slewed my telescope over toward Hercules, now high in the sky, to search for M-13, the great globular cluster. But the glare from the floodlights of a neighboring warehouse, was too much of an assault on my night vision. Hercules and all hope of finding any of the southern sky Messier objects, literally disappeared. It was time to end this game.

Charles Messier was a comet hunter, who lived in France in the late 1700's. On his nocturnal searches of the sky, he found objects that had the same fuzziness as comets, but that did not move. Perplexed, he classified them, recorded their exact position, and continued his sweeps of the sky in search of other cometary objects. By the time his catalog was complete, he had recorded the position of 110 objects that are now regarded by amateur astronomers as being a challenging and interesting variety of deep sky objects to observe and admire.

Springtime is the best time to stage a marathon, whose object is to find and view as many of the objects as one can in a single night. Since most amateur telescopes are now automated with "Go To" tracking software and power drives, seeing most of the Messier Objects in one sitting is more a matter of clear skies and determination to stay awake all night than a measure of one's knowledge of the sky and one's ability to use star chart and star hopping techniques.

And this is what I found when I joined the main group in the observatory. By midnight, we had viewed most of the Messier Objects in the western sky and we could take a break while the eastern most Messier Objects climbed higher above the eastern horizon.

The McCarthy Observatory is excellently instrumented. A Takahashi, 107 mm refractor telescope is mounted on the body of the Meade LX-200, 16 inch Schmidt Cassegrain telescope. Both the reflector and the refractor are precisely aligned with each other. For the Messier Marathon, we fit an imaging device, an SBIG-STV imaging CCD on the Takahashi and a 40 MM, two inch eyepiece on the Schmidt. So, we were able to view an object both through the lens of the 16 inch and see an electronically timed exposure of the same object on a video screen attached to the STV. This was an excellent strategy because when the eyepiece delivered a disappointing fuzz ball to the viewer, the STV delivered a richly defined, well contrasted image of the object in view. This occurred often. In fact, by 2:00 a.m, we decided that "Messier" is a French word, meaning "fuzzy".

As dawn approached and the last of the eastern stars disappeared into the approaching day, we had found 99 of the available 110 objects. We had viewed the great globular clusters, the beautiful open clusters, the great spiral galaxies and the wispy nebulae that make up the list of the Messier Objects. We saw Andromeda, the Great Orion Nebula (the 16 inch operators got to that one before the clouds set in) the Swan Nebula, The Ring Nebula, the Crab Nebula, the Sombrero Galaxy and were awed by their beauty. We were amazed by Messier's ability to spot these dim objects using his eyes and his knowledge of the sky. His night time Parisian sky must have been spectacularly clear as compared to the light filled and polluted atmosphere through which we must now view our heavens. Messier had crystal clear skies and limited equipment. We have poor skies and excellent technology - an interesting contrast, to be sure.

I learned much from the night. Practice helps. Dark skies help. Unpolluted, light free air helps. Persistence helps.

Technology rules.

Rick Birnbaum
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