Observing Report for October 11, 2019; Mira (Omicron Ceti)

by Joe Stieber

Backyard, October 11, 2019

Last weekend at the Clara Barton School star watch (04-Oct-2019), Alan D mentioned that the long-period variable star, Mira (Omicron Ceti), should be nearing its maximum brightness soon, but since we wrapped up around 9 pm, it was a bit too low to observe at the time (only about 5° altitude in the east).

Last week while I was looking through the Spaceweather.com photo gallery, I noticed a nice wide-field shot that included Mira (as well as Uranus and Vesta), taken on 05-Oct-2019. The description mentioned that it was reaching maximum brightness. Here's the page…

https://spaceweathergallery.com/indiv_upload.php?upload_id=156774

I then looked at the AAVSO web site and found that recent estimates for Mira were running around magnitude 3, or even brighter; indeed, it was approaching peak brightness and well within the range of visibility with unaided eyes…

https://www.aavso.org/apps/webobs/results/?star=MIRA&num_results=200

It's not clear to me when the upcoming peak will occur. The Wikipedia article about Mira indicates October 24, 2019 (based on data from SEDS) while the RASC 2019 Observer's Handbook indicates November 13, 2019.

In any case, on Friday night, October 11, 2019, despite cloudy skies after sunset, it was pretty clear when I looked out the window around 11 pm, so I went out to my backyard in light-polluted Maple Shade, NJ, under a nearly-full moon with my 10x42 binoculars around 11:30 pm.

Starting at Aries (easy to see high overhead), using the binoculars I extended a line through Hamal and Sheratan to Eta Psc in the eastern rope of Pisces, then headed south along that rope to Alrischa (Alpha Psc), the knot in the ropes. From there, I jumped 7° south to Mira, which at the current brightness, is easy to see in binoculars (it's also notable by its reddish tint). After locating Mira in the binoculars, I was able to spot it with unaided eyes, but I had to block the bright moon with the hand of my outstretched arm. While I was out, I also picked up Uranus and Neptune in the 10x42s, plus the core of M31 and the Double Cluster in Perseus.

I went out again on Saturday night / Sunday morning (October 12/13), shortly after midnight with my 15x56 binoculars. There were some passing clouds and the open sky between them didn't seem as transparent as the sky the previous night, but Mira was again easy to see in the binoculars and slightly less easy to see with unaided eyes. Uranus and Neptune were decidedly easier to see in the 15x56s (not surprising given the greater magnification and aperture, as well as the superior optical quality). I also picked up M31's core again, but didn't look for the Double Cluster.

Since Mira has a nominal 332-day period, ranging between magnitude 2 to 10, and it looks like it may be heading to a maximum of its maximum brightness (perhaps magnitude 2 vs. a typical 3), it's a good time for a look at it, especially after the moon wanes another week or so.