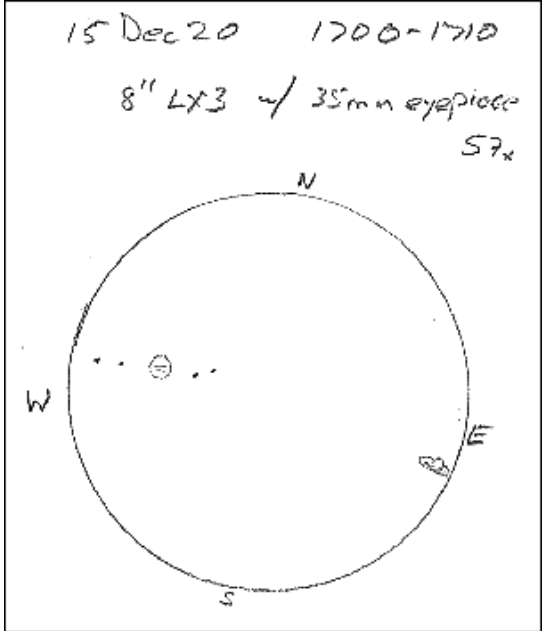


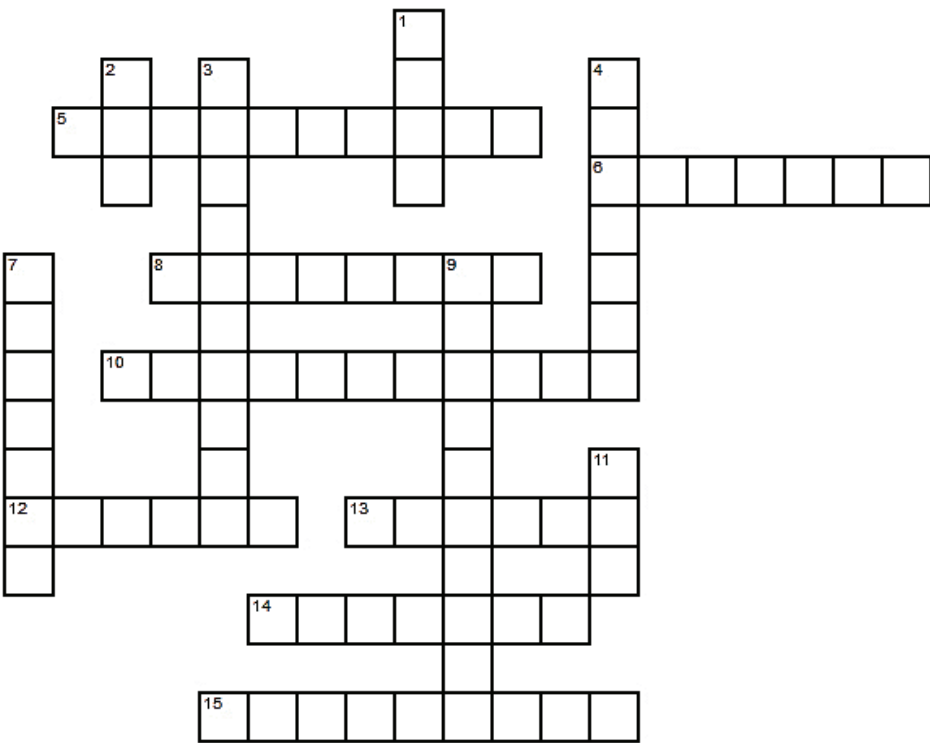
WHAT'S UP?

Hello, from the North Pole! Well, not really. Plympton is about 3300 miles from the North Pole, but I wanted to get you in the spirit of this installment of *What's Up?* Remember talking about *circumpolar stars* last month? If we were at the North Pole, which stars would always be above the horizon? The answer is...all of the stars north of the celestial equator. In other words, one-half of all the stars in the sky. Having the celestial equator as the cut-off line though means that if we were at the North Pole, we'd never get to see many things that we take for granted like Sirius (the Dog Star), the Teapot in Sagittarius, the Scorpion, and the heart of our galaxy. I'm glad we're not that far north. Of course, if we were at the Equator, over the course of a year we could see ALL of the stars in the sky! Think about this. Does it make sense?

As I'm writing this, the conjunction of Jupiter and Saturn hasn't occurred yet, and the weather forecast is a bit dicey for the 21st. If it wasn't clear that day, it's still worth going out when it is clear and looking for the pair. At sunset on Christmas day, they'll still be only a full-moon-width apart and visible together in binoculars and telescopes. Carolyn and I were out on the 15th and could see them easily in the same eyepiece at 57x magnification. I've never seen Jupiter (with its moons) and ringed-Saturn in the same view before. To me, it was fantastic and I'll always remember it. When I came indoors, I made a sketch to put in my logbook. With the conjunction coming as it does, so near to the 25th, it's being referred to by some as the Christmas Star. However, we know that it's not a star and if it was something like this that was seen 2000 years ago, it wouldn't have been a sudden and unexpected event. Then, as now, people who watched the sky would have seen the two planets getting ever closer together in the sky for months beforehand and would have known and been able to predict when the planets would reach their conjunction.



As we arrive at the end of the year, let's look back on the events and astronomy topics we've talked about in 2020. In the past twelve months, we've seen conjunctions, a comet and meteor showers; identified 22 constellations; and discussed how the planets move and why we see them when and where we do. I've put together a little puzzle for you to while away some time at the end-of-year. Hopefully, you can get comfy and take some time to reflect. Astronomically speaking, it's been a great year. Happy Holidays!



- | ACROSS | | DOWN | |
|--------|--|------|---|
| 5 | A well-known red giant star that dimmed in 2020 | 1 | Type of rare full moon |
| 6 | The flying horse | 2 | "The Lion" constellation |
| 8 | Latin word that means "to stand still" | 3 | Apparent backward motion of a planet |
| 10 | Stars that are always above the horizon | 4 | This planet was in conjunction with Saturn in December |
| 12 | Many meteors in a short period of time | 7 | The shape of a planet's orbit |
| 13 | Astronomer who correctly worked out how the planets move | 9 | Location in the Earth's orbit between an equinox and a solstice |
| 14 | Bright comet visible in 2020 | 11 | Shape of the path from the handle of Big Dipper to Arcturus |
| 15 | Measure of brightness | | |

You can reach me at astroblog@comcast.net with any questions and comments you have. This is *What's Up?* Installment #36.

Until next time, Keep looking up!
Barry