Late summer and early fall

BY GREELEY WELLS

A recent shift in the Gater's printing schedule means this column skipped some of July; please forgive me. You'll get this in late July and I only took you up to June in the last edition. Hope you survive! Of course, this year we also just skipped a whole spring anyway—go figure. Yeah sure, Ma Nature is not angry at us...

So, from late summer into fall we go: the Solstice has been over for a month by the time you read this. The Milky Way has gone from under and around us, to

center of our galaxy. In the southern hemisphere Sagittarius appears almost north; this is because the whole southern hemisphere sky down to the South Pole is also part of the Milky Way.

No one person can see the whole Milky Way at once, because we are actually within the Milky Way. We're surrounded by it, and only certain parts of the sky are visible from each of our positions on the planet. Can you imagine this kind of scale and view? I'm hard pressed to imagine it, and only

flowing almost straight overhead, north to south, with the Summer Triangle high in the middle. Many great and bright stars and constellations are out for our viewing pleasure. Although Leo has set in the west along with the Big Dipper, Cassiopeia has risen in the east. Now in the north of the Milky Way, her vertical "W" has turned into a lightning bolt, then to an "M," and in this season she will cross over the top of the North Star. You should be able to find Cassiopeia in the north and see how the thin portion of the Milky Way goes through her.

At the other end (the south), in our sky with a big bright bulge, is Sagittarius (see Illustration 1). On the left is the handle, the triangle is the top and to the right is the spout. Sagittarius is also called the Teapot by the English—no surprise there. Out of the spout comes that big splash of "milk," which then goes overhead through the Summer Triangle to Cassiopeia.

To us in the northern hemisphere, the southern part of our Milky Way galaxy appears to start with Sagittarius. However, Sagittarius is actually in the

"know" it must logically be so. Only a satellite that could take in the northern and southern hemispheres on both sides of the planet in a long single view could see it all! Some photographers have set up in various parts of the world and shot endless hours to come up with a composite view of our solar system that is quite spectacular and beautiful to behold. But it's a view none of us can have except that way.

THE PLANETS

SATURN is about the only planet that is easy to see. For you folks with a telescope, the rings open up briefly where the Milky Way seems to originate for a better view. It's moved from the south to the southwest, and will be setting by August. In July it is still traveling with the dimmer star Porrima in Virgo. In August Saturn leaves Porrima, and sinks farther each night into the sunset way below the bright Arcturus with Spica to its left. On August 31 Saturn, Spica and a crescent moon form a nice triangle together just after sunset. By September Saturn is lost in the sunset; in October it goes behind the sun, completely out of sight.

JUPITER rises about midnight

at July's end. In August Jupiter rises at sunset, about when Saturn sinks in the west. By September Jupiter is taking the place of Saturn as the only "easy" planet to find in the night sky. In October it will be the brightest object in the sky, up all night and setting around dawn.

VENUS is pretty much invisible Aquarid during July, August and September, but may be seen VERY low in the dawn sky in October.

MARS rises in July a few hours before dawn. Toward the end of August it nears Castor and Pollux and the crescent moon, in the dawn glow. Near the end of September it aligns with Caster and Pollux and again can be seen with the crescent moon as it heads for the Beehive asterism (Cancer), best seen in that light with binoculars. Mars actually goes through the Beehive this month and off toward a bright Regulus later on. Again, binoculars or a telescope will give you the full show. Try on the night of October 1.

MERCURY might be seen in the sunset quite low to the lower right of a bright Regulus in July. Mercury then slips into the sun to rise in the dawn in later September. In late October it's below that very low Venus after sunset.

OF SPECIAL NOTE

Overhead in late July is Hercules, along with the "C" of Corona Borealis, between the bright Arcturus in the upper West (follow the arch of the Big Dipper handle to find Arcturus) and Vega in the upper East (Vega is the brightest star of the Summer Triangle). Illustration 2 will help you locate Hercules.

The full MOONS of summer and fall start with July's on the 15th (you'll have missed that one by the time you read this). August's full moon is on the 13th—it is known as the Grain or Green Corn Moon. September's is on the 12th and is known as the Fruit Moon. October's is also on the 12th and is famously called the Harvest Moon.

September 23 marks the

Equinox, when days and nights are more or less equal in length.

The meteors may be



Greeley Wells

favorable this year from July 28 – 30. They will take place pretty much all night, with a radiant in the southern half of the sky. However, our famous and most dependable annual meteor shower, the Perseids, will be a flop this year because of a full moon! This is the first time in my little life I will knowingly miss these gems.

This time of year before dawn, if we're up looking for some of our planets, Orion and the winter constellations will be rising. Also generally at this time of year and in the dawn hours the most meteors are seen and the weather is so pleasant we can stand to be out in it!

August/September is also a fine time to see the subtle zodiacal light. This sharp vertical triangle of light appears in the ecliptic (the band where the planets, sun and moon travel) in the East before dawn and West well after the sunset glow. It is often called the "false dawn" as it proceeds real dawn (and likewise can occur after the real sunset glow). It has a pearly quality, and is very subtle and rare to see. You need a low horizon for the best viewing chances.

In England the Big Dipper is called the Plough; as the Dipper/Plough swings under the North Star this season there's another "plough" rising in the East on the opposite side of the North Star. It's much bigger and called Pegasus. It's a huge square—or diamond because it's on its corner—and foretells the coming winter, which is where I'll join you again next time.

> Greeley Wells 541-840-5700 greeley@greeley.me







