Applegater Summer 2009 11

THE STARRY SIDE Summer

BY GREELEY WELLS

Got a question for you: When do you wander out under the stars and look up? Just after sunset when there may be a bright "star" or planet, perhaps a sliver of a moon? Later on when you're about to go to bed? This is one of my steady times of night skying, when I usually answer nature's call before bed! Do you rise early to get to work or meditation and see the sky lightening up and beautiful bright things happening? Maybe you look when you hear about some event like meteorites or groupings of stars or planets. Perhaps you just concern yourself with books or planetariums. Whenever and no matter how often, you must be reading this because you get out there sometimes, you somehow enjoy the night sky. You've noticed different times and different seasons produce different skies. It's repeating and changing all at once and never really exactly the same. You must have caught the same bug I caught as a child. I'm glad

you enjoy it and are reading my words and my enjoyment. Thank you.

In July the Big Dipper is on it's pan with the handle almost straight up in the north west. It's companion, Leo the Lion, with Saturn glued to it for months is setting in the sunset, plunging head first. Behind him the subtle, fuzzy, dim splash of stars and galaxies called Coma Berenices follows. It used to be the end of the lion's fuzzy tail. Following

that, high in the sky is Arcturus the bright beacon of Bootes. Remember the saying using the handle of the Big Dipper: "Follow the arch (curve) to Arcturus" and on to Spica in the southwest in the dim Virgo. Rising in the east is a partial Pegasus, the great square. And farther up is our lovely summer triangle: the bright Vega, Altar and Deneb in Cygnus the Swan and also looking like a cross, the Northern Cross. This triangle and the Northern Cross fit perfectly into the north/south running Milky Way, our very own galaxy which contains almost every star we see, some billions and billions of them. Across the North Star from the upended Dipper is the "W" of Cassiopeia rising in the northeast on it's side as well, neither a "W" or an "M."

By the end of this quarter, the September sky will have rotated west towards the sunset and new wonders will be appearing. The Big Dipper is to the lower right of the north star in the northwest and Cassiopeia is almost an "M" in the upper east almost over the north star. Notice the Milky Way has shifted from north/ south northeast to southwest and so has the summer triangle which is now overhead. Where the Milky Way hits the southern horizon line is Sagittarius a rough rectangle which is approximately the center of our Galaxy. Pegasus (that great square) is overhead too still a bit easterly and a smaller trapezoid opposite it from the zenith (exact overhead) is Hercules right west of Vega. If you've a mind, take a moment to compare these skies where our descriptions start and end to notice how the sky swings overhead. It's fascinating and hard to fathom. It all centers around the North Star, rising in the east, swinging over head and setting in the west. The circumpolar stars, depending on your mountains above the horizon line simply move around the North Star and don't set at all.

September 17 Saturn is "in" the sun.

Jupiter rises as Saturn sets. It gets about 1/3 of the way up in the southern sky by dawn. By August Jupiter is bright and up all night, same in September. Look to the south.

Venus is the very dominant "star" of dawn. In mid-July she passes between the Pleiades and Hyades clusters in Taurus. On August 25 Caster and Pollux form a line with Venus. On September 16 Venus is just left of a nice crescent moon and just above Regulus in the sickle (or mane) of Leo the Lion, who left the sunset sky in August to show up in the September dawn! On the 20 of August Venus will almost run into Regulus, 1/2° apart about on hour before sunrise!

Mars, dim as usual now, rises 30 minutes ahead of Venus and follows her between the Pleiades and Hyades. This will help you pick it out in the gathering light of

dawn. On the 17 through 19 of July look for a crescent moon to enhance the show.

OF SPECIAL NOTE

The moon is full July 7 and is called the Hay or Thunder Moon. The next full moon is August 6 and is called the Grain or Green Corn moon. September 4 is the full moon called the Fruit Moon.

On July 29 is the possible peak night for the

Delta Aquarid meteor shower, though it's visible for many days. Look after midnight when the moon's gone. The traditionally fabulous Perseid meteors are considered unfavorable this year due to the brightness of the moon. But don't let that stop you from watching for them for many days around August 12. August is one of the greatest months for meteor action. Lie down, feet east and look at Deneb overhead. That's the direction our solar system is headed, it's like the windshield of the solar system. Look for the "snow" of meteors coming at you!

On September 22 is the Autumnal Equinox, approximately even length of day and night. Warm nights, big stars and meteors galore!

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Our solar system. Courtesy NASA/JPL-Caltech

THE PLANETS

Mercury is near the sun and still pretty much out of sight. On August 2 a half hour after sunset it can be seen right on the horizon line above Regulus, the bright star of Leo. Saturn is off a way to the upper left.

Saturn, in August, loses its rings, by turning on its edge. However we northerners will not get to see this. It'll be too close to the sun as Leo and Saturn both set in the west. This sequence from flat-on and visible, to edge on and invisible is approximately a 7 1/2 year cycle. Interesting that this year, the International Year of Astronomy, commemorates Galileo's discovery (400 years ago) of those rings which this year will disappear!

