Applegater Fall 2016 7

THE STARRY SIDE **Total solar eclipse in 2017**

BY GREELEY WELLS

I can't talk about fall 2016 until I tell you about fall 2017 because, if you want to see what I'm about to describe, you must be very clever and plan as far ahead as you can. Find some friends north of us-like in Bend-and stay with them in order to drive about an hour farther north on Monday, August 21, 2017, to see the total solar eclipse. It will start on the Oregon coast, go through Salem, then completely across the country, and leave the east coast off South Carolina. Most likely, there will never be another eclipse in our lifetime that is so close to us and so perfect.

I ventured to Guadalajara, Mexico, in 1991 to see the last eclipse that was somewhat close to us, and it was well worth the trip. I will see this one, too, especially because it is so in reach. It is being said that this will be the most observed celestial event in known history. This experience is next to none other that you can imagine. There's something inexplicable about being in the 90-milediameter black shadow of our moon around 10 in the morning that races at over 1,000 miles per hour past you to give you a perfect "almost night" with planets and stars for two minutes, then leaves as fast as it came. Your sense of the solar system will never be quite the same. Share this stupendous event with your partners, kids, and friends-it's a oncein-a-lifetime experience! Google "2017 total solar eclipse" for more details.

Now back to fall 2016. The summer triangle will still be up, but



Illustration: Guy Ottewell's Astronomical Calendar 2016.

moving westerly; by December only two of the three constellations will be visible. Bright Vega will be on the northwest horizon line along with the Northern Cross. The cross is really Cygnus the Swan, the long-necked goose, who will have its head on the horizon with its neck, tail, and wings forming a perfect cross standing close to upright. This summer icon dips northwest as our fall constellations rise.

In September, Pegasus the Horse is well up from the eastern horizon. It passes the zenith next month and is in the west in November. The big dipper is swinging under the North Star and taking bright Arcturus out of sight from the west-southwest, while Cassiopeia rises up to and over the North Star, Polaris. With her comes the Milky Way with Perseus (a large curved V-like shape pointed toward Cassiopeia), bright Capella in Auriga (the five-sided box), Taurus (that small V shape), and the familiar hunter Orion with his belt of three stars.

Other events of note

The Orionids meteor shower peaks on October 21, but is really around in a lighter form from October 2 through November 7. More than half of all meteors leave a train or trail behind, with

typically about 20 meteors occurring per hour at the peak



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on the 21st. The last quarter moon sets around midnight so morning viewing is still the best time.

Some planet and moon events: On September 3 and 4, a half hour after sunset, the crescent moon passes by Venus and Spica, respectively. Yes, Venus is back with us heading up into the sky at dusk. Jupiter is setting behind Venus and is soon gone. Mars and Saturn are in the southwest near the constellations Sagittarius and Scorpius. In October, Mars starts moving east, speeding up by late October along with Venus, who also leaps up from the horizon line and catches up with Saturn on the 29th. In November, Venus and Mars continue rising higher and higher in the southwest and then south. And Saturn goes behind the sun for a while.

Now here's a strange one for you: a full moon playing with Aldebaranthat bright star in that beautiful V of Taurus-twice in the same day! Yes, at dawn and dusk on November 15! The full moon moves into the tip of the V about an hour before sunrise; three hours after sunset it is just below it. Watch this travel on the days on either side of the 15th, too. It's a rare treat for star and moon lovers.

Here's to clear dark night skies and bright stars for you.

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