THE STARRY SIDE

Both sides of Orion

BY GREELEY WELLS

If you absorbed last quarter's discussion of Orion and found him leaping up from his back in the east, you've probably been watching him swing up overhead in the south and begins to stand up straighter. Each week, he's higher up and more obviously the king of the winter sky. Now, using Orion as a base, let's look on both sides of him for some other real delights.

In front of him to our right, is a bright star in a small distinctive triangle just outside Orion's shield. Orion's protecting himself from Taurus the bull and he's raising his club in his other arm about to swing a blow on Taurus. The triangle is Taurus' face and is also called the Hyades star cluster. The bright star is Aldebaran, the wild bull's bloodshot reddish eye. The triangle forming Taurus' face is distinct, and his horns go way out from the triangle; you can find the two ends of the horns about where you'd expect them to be, but way far up.

Further yet to the right is one of my all-time favorites: the Pleiades, or seven sisters—but with binoculars there are actually dozens! Some people think the Pleiades is the shoulder of Taurus, but I don't see it that way. The Greeks thought of the Pleiades as a perfect test for eyesight. Do you find six or seven? Or just a smudge? If you make out seven you've got good vision. (The shape of the Pleiades is often mistaken for the little dipper, which is actually a circumpolar constellation; the end of the little dipper's handle is the North Star, or Polaris.)

Now behind Orion, to our left, following him faithfully, is his dog, Canus Major. That bright star is Sirius, the brightest star in all the heavens. (This does not include planets, some of which are brighter than Sirius.) Sirius is the dog's heart. Below Sirius is the dog's front leg. To the left of Sirius a small triangle forms the dog's back leg and tail. Above Sirius, a few dim stars help you imagine a head.

Canus Major, Orion, Taurus and the Pleiades: These four constellations make a wonderful and notable set together. They're all pretty much in line with each other and together cover most of the high southern sky. I find them distinct and beautiful in the clear, cold winter sky. And as usual, they offer much to explore with any kind of optical aids.

THE PLANETS

Jupiter starts high in the south on early-January evenings, and ends the month having moved to the southwest and setting just after dusk. This is our last chance to enjoy it for a while, as Mars (see below) becomes our new planet companion in the night sky. On the 15th of February Jupiter has a close brush with the moon in the sunset, and with Venus if you can find it below. Jupiter has been moving steadily closer to the sun all through February and will disappear into it at month's end. It will appear again in April's dawn.

Mars spends the month of January getting up earlier and earlier. At the beginning of the month he starts rising around 7 pm; he ends the month rising around sunset. He's also closer and therefore seems larger than he has since 2008, and he won't appear this large again until 2012. By the end of January he'll spend the whole night with us: at the full moon on the 30th, he'll rise at sunset and set at dawn. February finds Mars still bright and big for one last month, so get out there and see it! It'll pass the Beehive Cluster around February fourth. On March 11, Mars becomes stationary for a short time compared to the stars behind it, but then resumes its eastward movement. I must admit I've never been able to notice one of these changes in a planet's movement; see if you can!

Saturn is rising around 11:30 pm in January and about two hours earlier by month's end. It makes for good telescope viewing on January 8, when it's high up and the rings tip the most for us too see. Saturn's rising time in early February is 9:30 pm, and by late month it's 7:30 pm. During this time it's getting closer to the earth and so might appear bigger. By late March, Saturn is rising around sunset.

Mercury is in the sun and invisible to us until late in January. Then, caught by dawn, it's low and hard to see (although for Mercury it's a relatively good view) 30 minutes before dawn. This pattern continues in the first half of February. In March Mercury pops up in the sunset, as usual very low and close to the sun.

Venus is hidden in the sun until February, when it rises briefly in the sunset and is very close to Jupiter on the 15th; look for it very close to the horizon line. Then in March Venus begins rising in the sunset and setting later and later than the sun, becoming more and more visible.

OF SPECIAL NOTE

Earth is at perihelion, its position nearest to the sun, on January 3. You probably know the earth is 93 million miles from the sun; that's in all the books. Well, on the third it's only 91.4 million miles from the sun. Interesting how everything is not set in stone—there are variations in nature; it's only in the classroom where it's all predictable with one answer!

We have the Quadrantid meteors this year on Sunday, January 3 but the moon will be strong almost all night and will foul up seeing them.

February 2 is Candlemas or Groundhog Day, a "cross-quarter" day half way between the solstice and the equinox.

March 14, Sunday is the time to "spring forward." At bedtime Saturday night, set your clocks one hour forward. Have you ever thought about the logistics of the time change? Interestingly, to make it all work there is technically no clock hour between 2 am and 3 am! Also, until the next time change this summer, the sun is actually at its highest at 1 pm, not at noon! (I still wish we'd stop playing with time.)

Saturday, March 20 brings the spring or vernal equinox. Until 2007 it was on the 21st, but from now till 2043 it'll be on the 20th. Go figure. Another of nature's variations, or is that man's variations?

MOONS: Saturday, January 30 is the full moon, known as the Moon After Yule or the Old Moon. In January the full moon rises just to the right of Mars, who is also rising. They will spend the night together, the warrior and the beautiful female moon. On the night of January 11, look for a crescent moon right next to Antares, the red rival of Mars, in Scorpio. February's full moon is on Sunday the 28th; it's called the Wolf Moon, Snow Moon or Hunger Moon. March's full moon is on the 30th, and is called the Lenten Moon, the Sap Moon, Crow Moon or Worm Moon. I think I must someday figure out where some of these interesting (and sometimes weird) names came from!

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