

### Trio will form triangle

**By Vernon Whetstone**

*Amateur Astronomer*

Okay troops, this week is where our watching of Jupiter, Venus, and Mercury all comes to a grand conclusion.

We have watched as the gas giant planet Jupiter has crossed the sky from a morning object into the evening sky and now is about to leave our view on its trip around to the far side of the Sun.

We have also watched as bright Venus has risen into our view in the west just before sunset joining the planet Mercury, and now we are going to watch as all three planets meet to form a nice triangle in the western sky.

The three will continue to get closer each evening this week until Sunday, May 26, when they will be at their closest.

Look west about a half-hour to 45-minutes after local sunset for the three bright dots that are our planetary targets. They will all three fit nicely in a binocular field of view.

I hope you remember from our discussion of double stars that just because objects look close does not mean they really are close.

Such is the case here for this planetary conjunction. Remember that space is three-dimensional. We can see the up and down of the three, but there is a third element we must consider and that is depth.

Let us start with the smallest of the three, tiny Mercury. It is the planet closest to the Sun, and will be on the upper right side of the triangle.

Next out from the Sun is Venus and it is the lowest corner of the triangle on the right side. That leaves giant Jupiter in the middle on the left side of the triangle.

That is the up and down of it, now for the depth. Mercury is about 117 million miles from Earth, Venus is about 154 million miles away, and Jupiter is the farthest at 560 million miles.

Continue to watch the planets as Jupiter drops toward the horizon and Venus and Mercury continue their upward climb. By Wednesday, May 29, the three planets will form a straight line.

Mercury will continue to climb until early June when it will also start to sink toward the horizon. Venus continues up, but its path will slowly drop and seem to flatten out until it drops below the horizon in September.

There is one more grand conjunction for our almost-twin planet on Wednesday, July 3, when it will try to hide itself among the stars of the open star cluster M44, the Beehive.

Binoculars will provide a nice view. Two more nice conjunctions await Venus in her travels. The first on July 22, when she passes Regulus, the brightest star in Leo, the Lion, and on Sept. 4, when she will join our old friend Spica before dropping below the horizon.

SKY WATCH: Full moon on Saturday, May 25. One more quick view using the planet Jupiter

for a location aid. On Monday, May 27, when all three planets are still making a nice triangle, use the planet Jupiter as an assist in locating M1, the Crab Nebula. Wait until about 9 p.m., local time so the sky will be a little darker and place Jupiter in the center of the field of view.

Venus will be lined up to the right, and about one degree to the left will be the faint fuzzy glow of the first object French comet hunter Charles Messier placed on his list of things that were not comets. It is a planetary nebula, the remnant of a star that blew itself to pieces in a supernova as recorded by Chinese astronomers in the year 1054.

**NEXT WEEK:** The other astronomical strong man, and more astronomical blather.