The Night Sky of August
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For August 2011, the month starts with the waxing crescent moon in the western sky after sunset. On the 4th, it passes seven degrees south of Saturn in the SW sky, and reaches first quarter phase on August 6th. It is full moon on August 13th, which alas means that it will wash out most of the famed Perseid meteors. The morning of August 12th is the peak for the Perseid Meteor Shower, our best annual celestial fireworks show. If you have a dark sky site, you will see about a bright meteor every 5-10 minutes from midnight until dawn, despite the moonlight. They will seem to come out of the constellation Perseus, rising in the NE just before midnight. The waning gibbous moon passes 5 degrees north of Jupiter in the morning sky on August 20th, then three degrees south of reddish Mars on August 25th. The last two weeks find the moon waning in the morning sky, making the darker evening skies idea for observing the Milky Way.

While the naked eye, dark adapted by several minutes away from any bright lights, is a wonderful instrument to stare up into deep space, far beyond our own Milky Way, binoculars are better for spotting specific deep sky objects. For a detailed map of northern hemisphere skies, about July 31st visit the www.skymaps.com website and download the map for August 2011; it will have a more extensive calendar, and list of best objects for the naked eyes, binoculars, and scopes on the back of the map. Also available as the next month begins is wonderful video exploring the August 2011 sky, featuring many different objects, available from the Hubble Space Telescope website at: http://hubblesite.org/explore_astronomy/tonights_sky/.

Mercury will be visible in the evening sky in early August, just to the right of the crescent moon on August 1st. But it soon gets lost in the sun’s glare, where Venus also now lies. Mars is in the morning sky in Taurus, rising about 4 AM. Jupiter rises in Aries about 2 AM at the start of August, and about midnight by month’s end. It is at opposition on October 29st, rising in the east at sunset and up all night. Those who are used to seeing Jupiter will be glad to know its prominent south equatorial belt, which vanished last year, is apparently growing back to give the gaint planet is two racing stripes again. And of course, the four Galilean moons are fun to watch with any backyard telescope. But the best telescopic treat is still Saturn, now moving eastward away from gamma Virginis in the southwestern sky. Enjoy the rings, now open about 8 degrees, for by the end of September it will be lost in the sun’s glare in the west.

The Big Dipper rides high in the NW at sunset, but falls lower each evening. Good scouts know to take its leading pointers north to Polaris, the famed Pole Star. For us, it sits 30 degrees (our latitude) high in the north, while the rotating earth beneath makes all the other celestial bodies spin around it from east to west.

Taking the arc in the Dipper’s handle, we “arc” SE to bright orange Arcturus, the brightest star of Spring. Cooler than our yellow Sun, and much poorer in heavy elements, some believe its strange motion reveals it to be an invading star from another smaller galaxy, now colliding with the Milky Way in Sagittarius in the summer sky. Moving almost perpendicular to the plane of our Milky Way, Arcturus was the first star in the sky where its proper motion across the historic sky was noted, by
Edmund Halley.

Spike south to Spica, the hot blue star in Virgo. Look for Saturn to the upper right of Spica, and drawing closer to it night by night as Saturn revolves around the sun in its slow 30 year orbit. From Spica curve to Corvus the Crow, a four sided grouping. It is above Corvus, in the arms of Virgo, where our large scopes will show members of the Virgo Supercluster, a swarm of over a thousand galaxies about 50 million light years away from us.

Hercules is overhead, with the nice globular cluster M-13 marked on your sky map and visible in binocs. It is the featured celestial showpiece this month, in this fine shot by EAAA member Rick Johnston. It is a good approximation of the cluster as seen through the eyepiece of a 6” telescope at about 100X. Larger scopes reveal many more stars, of course. Several other good globular clusters are also shown and listed on the best binoc objects on the map back page.

The brightest star of the northern hemisphere, Vega dominates the NE sky. Binoculars reveal the small star just to the NE of Vega, epsilon Lyrae, as a nice double. Larger telescopes at 150X reveal each of this pair is another close double, hence its nickname, the “double double”…a fine sight under steady sky conditions.

Below Vega are the two bright stars of the Summer Triangle; Deneb is at the top of the Northern Cross, known as Cygnus the Swan to the Romans. It is one of the most luminous stars in our Galaxy, about 50,000 times brighter than our Sun. To the south is Altair, the brightest star of Aquila the Eagle. If you scan the Milky Way with binocs or a small spotting scope between Altair and Deneb, you will find many nice open star clusters and also a lot of dark nebulae, the dust clouds from which new stars will be born in the future.

To the south, Antares rises about the same time in Scorpius. It appears reddish (its Greek name means rival of Ares or Mars to the Latins) because it is half as hot as our yellow Sun; it is bright because it is a bloated red supergiant, big enough to swallow up our solar system all the way out to Saturn’s orbit!

East of the Scorpion’s tail is the teapot shape of Sagittarius, which marks the heart of our Milky Way galaxy. Looking like a cloud of steam coming out of the teapot’s spout is the fine Lagoon Nebula, M-8, easily visible with the naked eye. This stellar nursery is ablaze with new stars and steamers of gas and dust blown about in their energetic births. In the same binocular field just north of the Lagoon is M-20, the Trifid Nebula.

We plan to come back out the Ft. Pickens on August 19th for our new moon deep sky observing. We will set up around sunset at Battery Worth picnic area; we will do this again on September 16th and October 21st. Bring out your lawn chairs and beach blankets We return to the Pavilion in Pensacola Beach for our sidewalk astronomy gazes on August 5-6 for our public planet and moon watch, and again on September 2-3 and September 30 and October 1st for observing the first quarter moon and planets in evening sky. In the evening, of course, we will have scopes set up, clear skies permitting, to
allow you to observe Saturn, the moon, satellites such as the International Space Station and the Hubble Space Telescope, nebulae, clusters, double stars, and other celestial treats. Free star charts and information on the EAAA will also be provided.

For more information on the Escambia Amateur Astronomers, visit our website, www.eaaa.net or call our sponsor, Dr. Wayne Wooten at Pensacola State College at (850) 484-1152, or e-mail him at wwooten@pensacolastate.edu.

Please note our NEW EMAIL ADDRESS: @pensacolastate.edu. Pensacola State College is the new name for Pensacola Junior College.

Illustration 1: 65cff_Hercules - M13

Text 1: Taken by Rick Johnston - 08/2011 issue