Smoky Mountain Astronomical Society



Society's ChRonological Astronomical PaperS

Volume 33, Number 7 July, 2010



Events – Past

SMAS Annual Picnic

There was a big crowd at TAO on June 19; however, SMAS member participation for the Annual Picnic was very disappointing with only 3 club members participating. Fortunately, there was good participation from the TAO group to help consume all the delicious food prepared by SMAS members. Special thanks go to Michael Littleton who prepared 2 wonderful barbecue dishes in his new "Green Egg" smoker. Lee Erickson did his usual good job of explaining the workings of the universe to an interested audience.



Events – Future

July 17, 2010 – Star party at Look Rock (weather permitting).

August 13, 2010 – Regular SMAS meeting at PSTCC. Tentative program: "Wide Field Astrophotography". Included will be an introduction to the use of some excellent Freeware programs for image processing.

Minutes of June, 2010 Meeting

There was no June SMAS meeting - The SMAS picnic was the activity of the month.

Minutes of the July meeting will appear in the August SCRAPS edition

The Summer Triangle makes it Annual return visit

The Summer Triangle dominates the summer sky. It crosses the hazy band of the Milky Way, which is split into two near the star Deneb by a large dust cloud called the Cygnus Rift.

The points of the triangle are three of the brightest stars in the summer sky, each the brightest star in its own constellation. The brightest is Vega, in Lyra; second is Altair, in Aquila; and third is Deneb, in Cygnus. Even city-dwellers with glowing, light-polluted skies can find the Summer Triangle.

Using the Big Dipper as the guide to the other stars and constellations, imagine a line extending 75 degrees of sky from the two bowl stars closest to the handle, to a point in the middle of the Summer Triangle. Stretch out your arm out at full length and measure about three spread hands from little finger to thumb. Each hand covers about 25 degrees of sky.

Credit for the above article goes to Pedro Braganca, Education & Content Director, Starry Night® *Education*

SCRAPS						
Page 3						

Online Resources

Sky and Telescope Magazine has a great On-line site with preview of current sky. See the following example for third week in July. Current articles are available at the following link: <u>http://SkyandTelescope.com/observing/ataglance?1=1</u>

This Week's Sky at a Glance

Some daily events in the changing sky for July 16 – 24. by Alan M. MacRobert



For the last few days, the waxing crescent Moon has marched along well south of the ecliptic. Mercury, Venus, Mars, and Saturn lie much closer to the ecliptic (the plane of the solar system projected onto Earth's sky). <u>Sky & Telescope</u> diagram

Friday, July 16

• Look for Saturn and Mars to the right of the Moon at nightfall, as shown above.

Saturday, July 17

• Face east as the stars come out, and look very high; the brightest star there is Vega. Deneb is the brightest star to Vega's lower left, by 2 or 3 fist-widths at arm's length. Farther to Vega's lower right is Altair (with little Tarazed just above it). Vega, Deneb, and Altair form the big Summer Triangle.

Sunday, July 18

• First-quarter Moon (exact at 6:11 a.m. Eastern Daylight Time).

Monday, July 19

• Bright Vega passes highest overhead around midnight daylight saving time this week, depending on your longitude within your time zone. (How accurately can you time when Vega does this?) How close to the zenith Vega passes depends on your *latitude*. Vega goes exactly overhead if you're at north latitude 39°: Washington DC, St. Louis, Kansas City, Lake Tahoe.

Tuesday, July 20

• The brightest star in the west after dark is Arcturus, slowly moving lower now as summer advances. To its right in the northwest, the Big Dipper is swinging down into proper dipping position.



The waxing gibbous Moon crosses upper Scorpius on Tuesday and Wednesday. These scenes are drawn for the middle of North America. European observers: move each Moon symbol a quarter of the way toward the one for the previous date. For clarity, the Moon is shown three times actual size. <u>Sky & Telescope</u> diagram

Wednesday, July 21

• After dark, look to the right of the waxing gibbous Moon for Antares and other stars of upper Scorpius, as shown here.

Thursday, July 22

• Jupiter's Great Red Spot should cross the planet's central meridian (the line down the center of Jupiter's disk from pole to pole) around 1:10 a.m. Friday morning Eastern Daylight Time, when Jupiter will be well up in the sky for observers the U.S. eastern time zone. See our <u>full list</u> of all Red Spot transit times for the rest of 2010.

Friday, July 23

• Saturn's wild, weird moon Titan is west of Saturn this evening. A small telescope will show it (at 9th magnitude). Follow Titan as it swings back and forth in orbit around Saturn every 16 days. Saturn's rings, meanwhile, still appear very narrow, but they've widened a trace in the last several weeks to 3° from edge on — even as the entire Saturnian system has been shrinking into the distance.

Saturday, July 24

• A line from Deneb through Altair (the longest side of the Summer Triangle) points down nearly to the Moon this evening.

All descriptions that relate to your horizon or zenith — including the words up, down, right, and left — are written for the world's mid-northern latitudes. Descriptions that also depend on longitude (mainly Moon positions) are for North America. Eastern Daylight Time (EDT) equals Universal Time (also known as UT, UTC, or GMT) minus 4 hours.

To be sure to get the current Sky at a Glance, bookmark this URL: <u>http://SkyandTelescope.com/observing/ataglance?1=1</u>

If pictures fail to load, refresh the page. If they still fail to load, change the 1 at the end of the URL to any other character and try again.

News Articles Needed

In order to have a better newsletter, I would ask that members contribute articles for publication in SCRAPS. Write about

- a project you have underway,
- a trip or visit made that had some astronomical connection,
- a review of an interesting book,
- a link to a useful website,
- or any other subject that might be of interest to the group.

Please send your articles to Jim Sanders (sandersj@chartertn.net)

SCRAPS	http://www.smokymtpostro.org	Volume 33, Number 7
Page 7	http://www.shlokyhthastro.org	July, 2010

July 2010									
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY			
			1	2 UT K	³ TAO				
4	5	6	7	8	9 SMAS Meeting PSTCC	10 SMAS Star Party Unicoi Crest			
11 New Moon	12	13	14	15	16 UT K	17 SMAS Star Party Look Rock TAO			
18	19	20	21	22	23	24			
25 Full Moon	26	27	28	29	30	31			

UTK – roof of Neilson Physics Building on the Hill At UT on $1^{\rm st}$ and $3^{\rm rd}$ Fridays http://www.phys.utk.edu/trdc/telescope.html

TAO – Tamke-Allen Observatory Public Stargaze Watts Bar Lake, Roane County 1st and 3rd Saturdays http://www.roanestate.edu/obs/