Celestial Highlights

**Saturn**

Saturn is +0.5 magnitude in brightness and 17.6 arcsec across at mid-month.

**Mars**

Mars is in constellation Virgo. It is magnitude -0.2 in brightness and 10.4 arcsec across.

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**LAS Meeting Thursday July 17th at 7 pm**

This month’s meeting will be “show and tell”. Bring in your eyepiece, scope, camera, or gadget you’ve bought recently and tell us about. If you’ve built some new gadget or developed an interesting software program then show and describe it to us. If you’ve had some successes or failures with some astronomy software or imaging processing technique, we’d love to hear about that as well! You could even show us a few pictures of a recent trip to an observatory, astronomy museum, or space facility.

The meeting will be at the IHOP Restaurant. 2040 Ken Pratt Boulevard, Longmont, please join us for coffee, dinner or just desert around 6 pm; the general meeting and presentations will begin at 7 pm.

**Star party at Sandstone Ranch on Aug 2**

Scopes and volunteers needed at the star party for the “Sapling Nature Club”. From Longmont, head east on Ken Pratt Blvd (Highway 119) and pass the ball fields on your right. Turn right (south) on Sandstone Drive which is just after the ball fields and before the Chevrolet auto dealership. Follow the signs to the Sandstone Ranch Visitors center parking lot (0.5 mile).
Venus

Venus rises around 3:45 am in the ENE and resides in the constellation Taurus. It is -3.9 magnitude in brightness and 12.4 arcsec across.

Mercury

Mercury is visible in the ENE about 4:20 am. It is magnitude 0 in brightness and 7.3 arcsec across at mid-month.

Uranus

Uranus is visible in the constellation Pisces at magnitude 5.8 in brightness and 3.4 arcsec across.

Neptune

Neptune is in constellation Aquarius. It is magnitude 7.8 in brightness and 2.5 arcsec across.

June Meeting

Twenty people were present at the June 19th meeting. Dr. Fran Bagenal, professor in the Department of Astrophysical and Planetary Sciences at the University of Colorado, Boulder, gave an excellent presentation about auroras of different planets and the various processes that cause planetary auroras. Following that we reviewed images Gary, Brian, and Jim have taken since the last meeting.

A few July Dark Sky Objects

Credit: Messier 20, “Trifid Nebula”, by Jim Pollock

Messier 20 or the “Trifid Nebula” is one of the most beautiful summer objects to view through the eyepiece or image with a camera. The red emission nebula with a star cluster near its center is surrounded by a blue reflection nebula which is particular visible to the north. Dense cloud of dust and gas or dark nebula (Bernard 85) divide the object into the trifid shape. The name “trifid” was first used by John Herschel to describe this marvelous object.

First quarter: July 5 5:59 am MDT
Full moon: July 12 5:25 am MDT
Third quarter: July 18 8:08 pm MDT
New moon: July 26 4:42 pm MDT
**Dark Sky**

At the beginning of the month astronomical darkness begins at 10:34 pm MDT and ends at 3:48 am MDT. By the end of this month astronomical darkness begins at 10:08 pm and ends at 4:18 am mdt.

**Messier 14**

Messier 14 is a class 7 globular cluster which is 11 arcmin in diameter and magnitude 7.6 in brightness. It is located in constellation Ophiuchus. To find it manually, first locate Gamma Ophiuchus and then Eta Ophiuchus. M14 is located about ⅓ the distance of the length of the line between those two stars.
Comets

C2014/E2 (Jacques) is becoming visible for us this weekend. It should be about magnitude 6.6 in brightness; it is currently in constellation Taurus. On Sunday morning July 13 around 4 am find Venus in the ENE with your binoculars and then look about half a binocular field (3 degrees) to left and slightly upward.

C2012/K1 (PANSTARRS) is the brightest comet to observe this month at about magnitude 7.9 in brightness. Its currently in constellation Ursa Major. Best time to view would be in the early dawn around 4 am.

C2014/UQ4 (Catalina) is in constellation Andromeda. It is around magnitude 9.5 in brightness. Best time would in the early dawn around 4 am.

C2012/X1 (LINEAR) is in constellation Capricornus. It is around magnitude 9.2 in brightness and so should also be visible in binoculars. View it low in the eastern sky during early twilight.

Comet C/2014 (Jacques) - Looking ENE at 4 am July 13

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