

Astronomical Highlights 2022

Eclipses

Of the 4 eclipses that occur in 2022 (2 solar, 2 lunar), none of the partial solar, and parts of both Total Lunar Eclipses will be visible from Hampton Roads. On Sunday night, **May 15-16**, Hampton Roads will get to see a Total Lunar Eclipse in its entirety from 22:27 until 01:55 EDT. On Tuesday morning, **November 8**, we get to see part of another Total Lunar Eclipse that begins at 4:08 and sets during totality at 6:46. The entirety of that eclipse is visible in the western U.S.

Planets

Mercury reaches its greatest eastern elongations in the evening sky **Jan. 7, Apr. 29, Aug.27, and Dec. 21**, and greatest western elongations in the morning sky **Feb. 16, June 16, and Oct 8**. Around these dates will be the best times to try to spot this elusive planet in twilight. Venus reaches inferior conjunction with the Sun on **Jan 8**, and moves into the morning sky. Greatest brilliancy of Venus of -4.6 occurs on **Feb. 12** followed by greatest elongation west on **Mar. 20**. The remaining superior planets are best observed near opposition, which occurs for Saturn on **Aug 14**, for Neptune on **Sep 16**, for Jupiter on **Sept. 26**, for Uranus on **Nov 9**, and for Mars on **Dec. 8**.

Meteor Showers

The best meteor shower of the year is expected to be the **Jan. 2-3 Quadrantids** (zhr=120) which coincides with New Moon. Other showers with minimal moon interference include the **May 4 Eta Aquarids** (zhr=40), the **July 29 S. Delta Aquarids** (zhr=16), and the **December 22 Ursids** (zhr=10). The remainder of the meteor showers have somewhat serious interference with the Moon.

Lunar Occultations/Grazes

The brightest star occulted here by the Moon this year is +2.26 magnitude Dschubai (delta SCO) on **Apr. 19** and again on **Dec. 21**. Other bright stars occulted this year are +2.75 Zuben Elgenubi (alpha LIB) on **Apr. 17**, and +2.82 Porrima (gamma VIR) on **Mar. 19**, among many others.

Our closest local graze is that of +2.26-magnitude Dschubai (delta SCO) on **Tuesday, Apr. 19** at 2:37 AM EDT. The graze path runs through Gates County, NC, near Eure Christian Church. The event is a total occultation from Hampton Roads.