Gola – Summer 2024

By **Julene Louis (Jyotish Ratna, Jyotish Visharada, ISAR-CAP),**
ACVA Curriculum Coordinator

Gola is the observational astronomy limb of Jyotish. This summer Mangala, Guru and Shani are visible in the morning sky. Shukra becomes an evening graha in mid-July and remains visible throughout the rest of summer. Budha is visible in the evening sky at the beginning of summer, invisible during mid-summer and visible in the morning sky at the end of summer.

Go out and observe the grahas as they travel through the rashis and pass the primary stars of nakshatras. Commune with them in the heavens and experience a level of seeing, beyond a computer screen, that deepens your understanding and practice of Jyotish. Chandra passes the grahas during its 27.5-day cycle through the zodiac, providing opportunities to witness their conjunctions and locate the grahas in the night sky.

As summer begins, locate Shani, Mangala and Guru in the morning sky. Shani is travelling through the space between the constellations of Kumbha and Mina rashis. Look below Scheat and Markab of Pegasus to locate Shani in Purva Bhadrapada nakshatra. Mangala, travelling through Mesha rashi, will be east of Shani. Observe Mangala passing between Menkar of Cetus (below) and Almach of Andromeda (above) marking Bharani nakshatra. Guru will rise in the east-northeast shortly before dawn in Vrishabha rashi, slightly above and west of Aldebaran marking Rohini nakshatra.

At the end of June, Chandra joins Shani in the morning sky. Observers in India will find Shani east of Chandra on the morning of June 27th and west of Chandra on June 28th. Observers in the USA will find Shani at the upper eastern edge of Chandra on the morning of June 27th.

Fig. 1: India, dawn, June 27, 2024

Fig. 2: USA, west coast, dawn, June 27, 2024

At the beginning of July, Chandra joins Mangala and Guru in the morning sky. Observers in the USA will find Mangala beneath Chandra on the morning of July 1st. Chandra will be between Mangala and Guru on the morning of July 2nd and then above and slightly east of Guru on July 3rd. Observers in India will find Mangala east of Chandra on the morning of July 1st and west of Chandra on July 2nd. Guru will be below Chandra on July 3rd.

Fig. 3: USA west coast, dawn, July 1, 2024

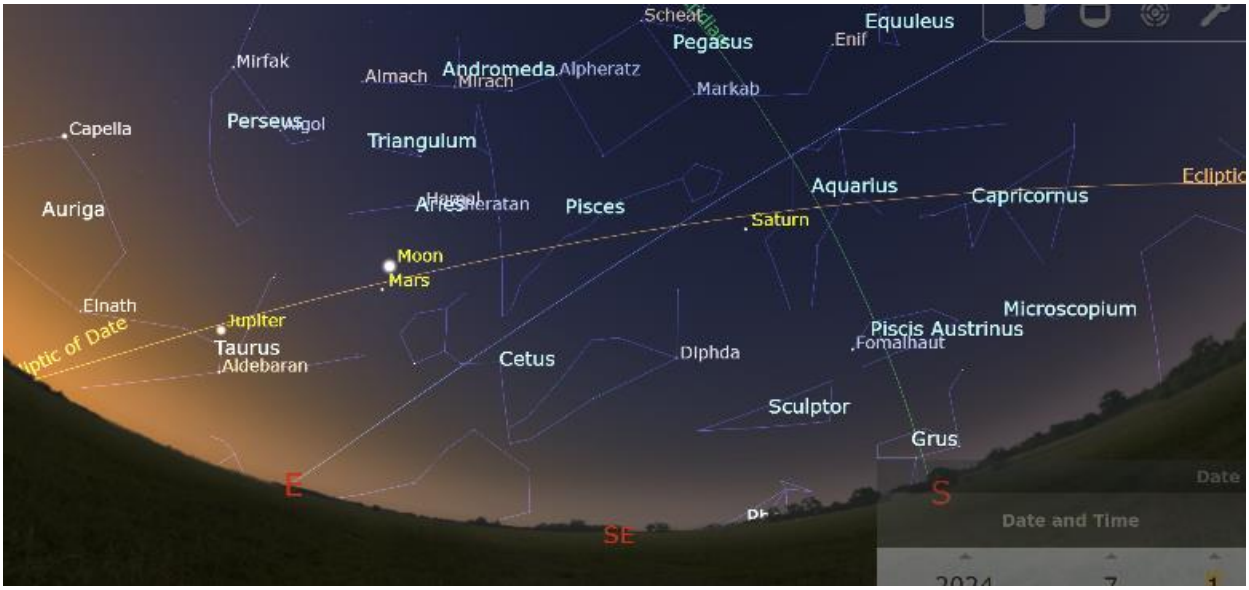
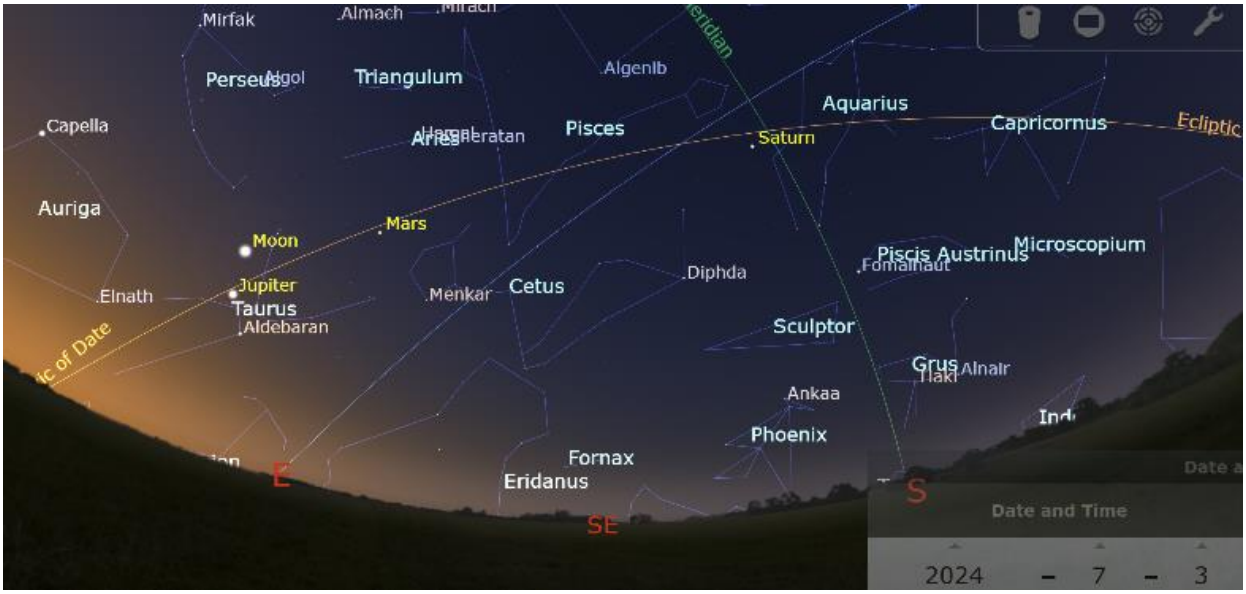


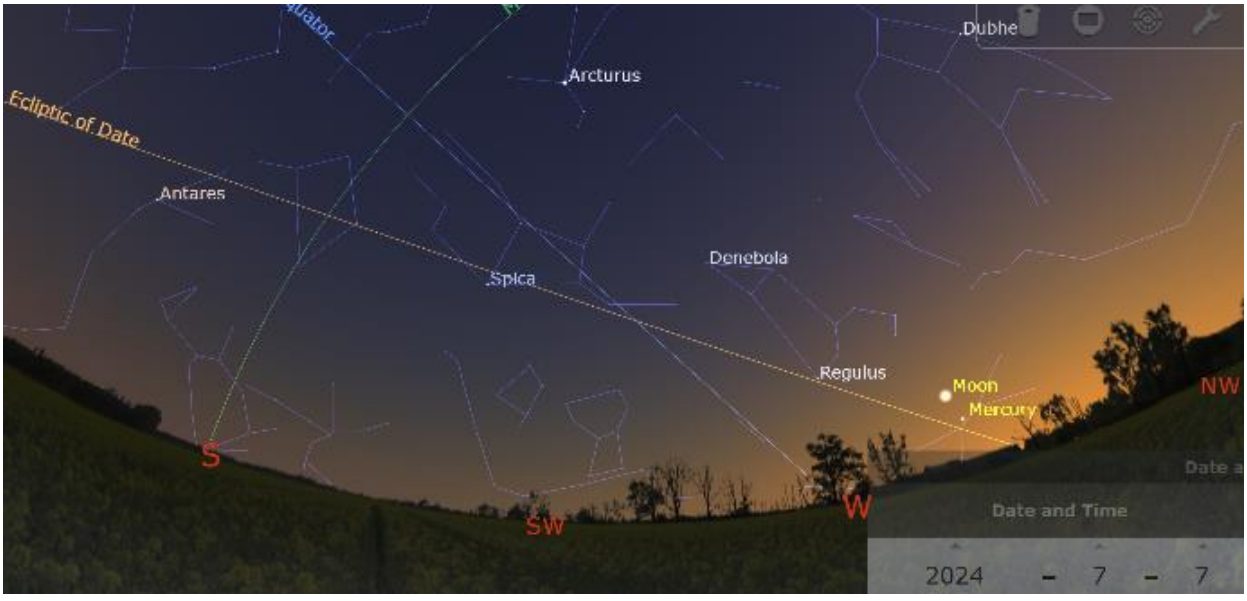
Fig. 4: India, dawn, July 3, 2024



Meanwhile, in the evening sky, look for Budha to appear low to the west-northwest horizon during the glow of sunset as summer begins. Budha is travelling among the dim stars of Karka rashi. Observers in India can locate Budha slightly east of Chandra on the evening of July 7th. Observers in the USA can locate Budha below Chandra on July 7th.

Fig.5: India, dusk, July 7, 2024

Fig. 6: USA, west coast, dusk, July 7, 2024



Shukra becomes an evening graha in mid-July. Begin watching the west-northwest horizon during sunset around July 17th. Shukra will remain very low to the horizon, moving further east each evening.

Fig. 7: India, dusk, July 17, 2024

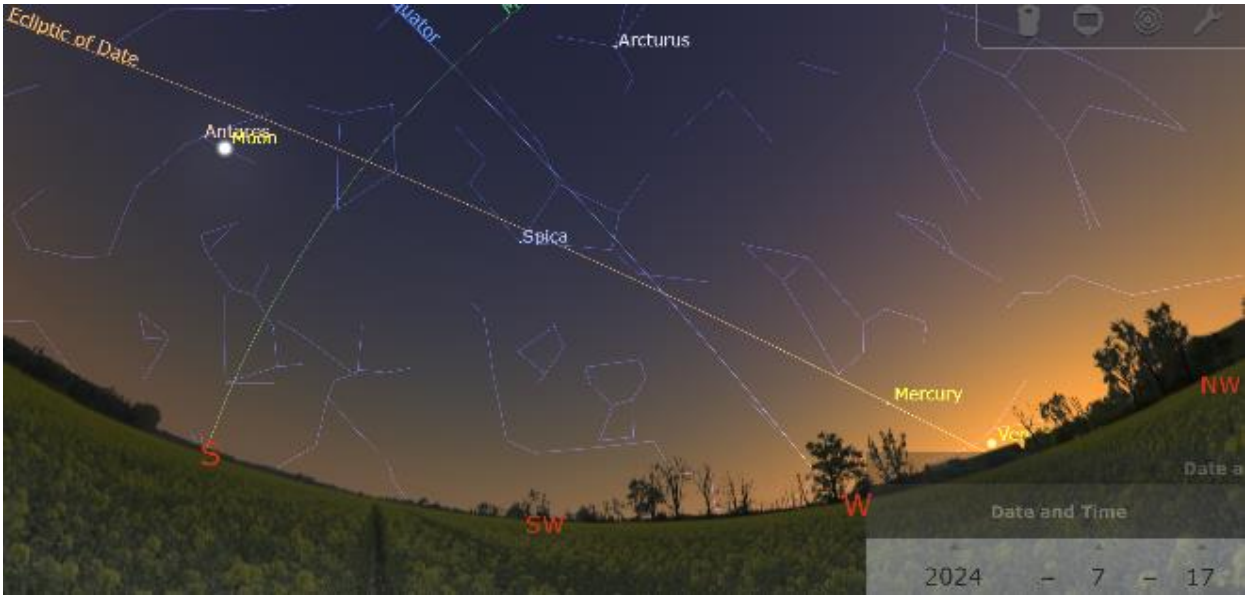
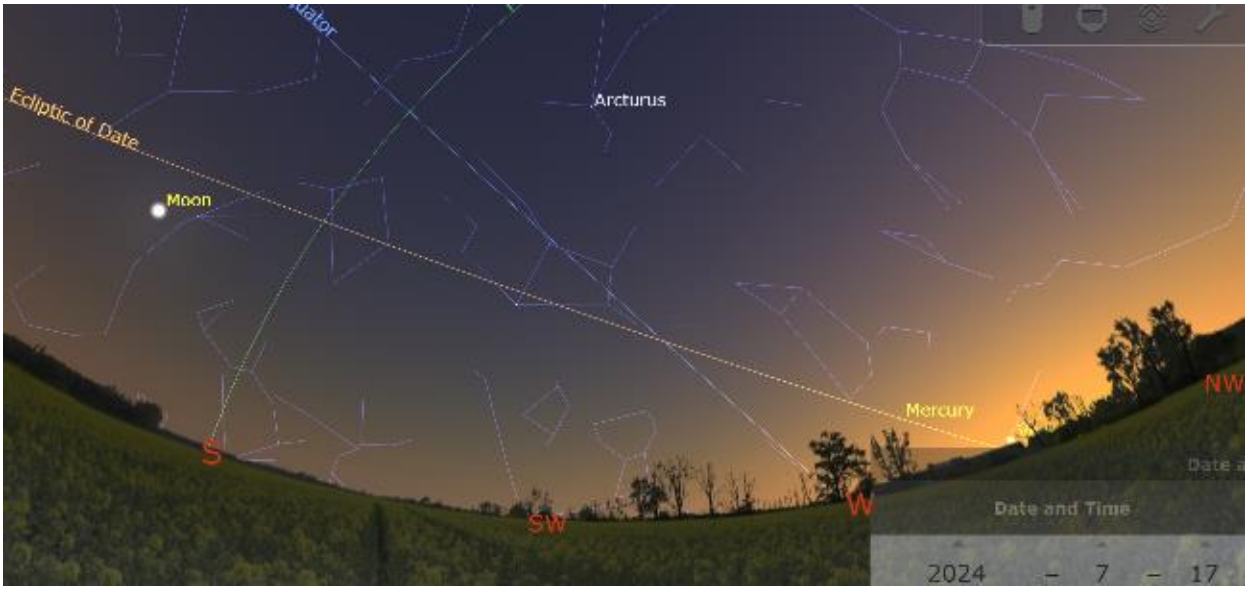


Fig. 8: USA, west coast, dusk, July 17, 2024



Meanwhile, in the morning sky**,** Mangala passes beneath the Krittikas in Vrishabha rashi on July 22nd – 23rd. The Krittikas are a cluster of seven stars also known as the Pleiades that mark Krittika nakshatra. Chandra joins the morning grahas in late-July. Observers in the USA can locate Shani east of Chandra on July 24th and west of Chandra the following evening. On July 30th Chandra will appear above and between Mangala and Guru. Observers in India can locate Shani near the western edge of Chandra on July 25th. Chandra will be above and slightly west of Mangala on July 30th and above and slightly east of Guru on July 31st.

Fig. 9: USA, west coast, dawn, July 24, 2024

Fig. 10: India, dawn, July 25, 2024

Fig. 11: USA west coast, dawn, July 30, 2024

Fig. 12: India, dawn, July 31, 2024

Meanwhile, in the evening sky, Budha will pass slightly beneath Regulus in Simha rashi marking Magha nakshatra on July 24th. On August 4th - 5th Shukra will pass slightly above Regulus as Chandra joins the evening grahas. Observers in India will find Chandra west of both grahas on August 5th. On August 6th Chandra will be above and east of Shukra and directly above Budha on its last night of visibility. Due to the varying slant of the ecliptic in different locations, observers in the USA will lose sight of Budha a few days earlier but will be able to locate Chandra above Shukra on August 5th. Budha's evening visibility typically ends around the date of its retrograde station.

Fig. 13: USA, west coast, dusk, Aug 5, 2024

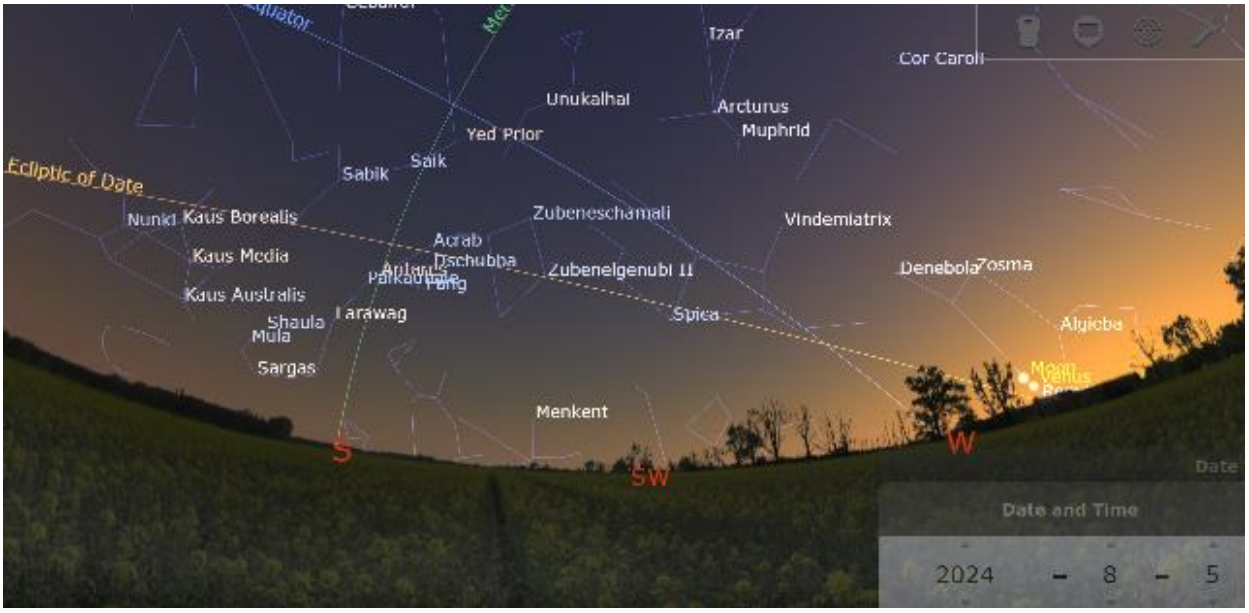
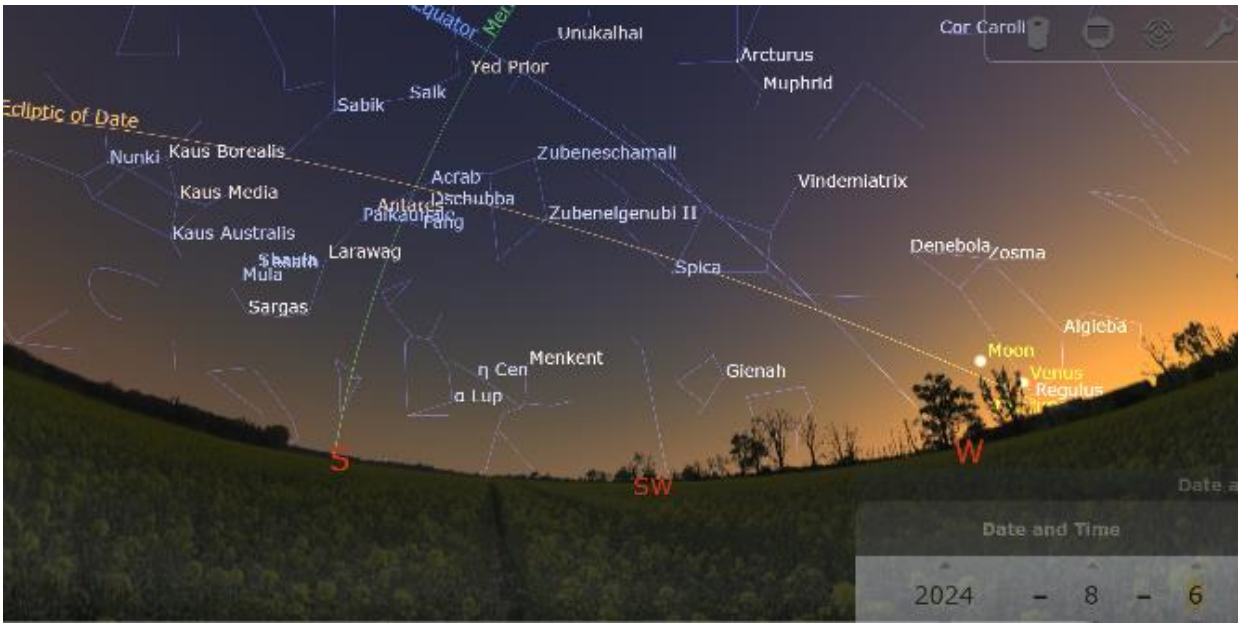


Fig. 14: India, dusk, Aug 6, 2024



On August 13th, Shukra will pass below Zosma in Simha rashi marking Purva Phalguni nakshatra. On August 21st, Shukra will pass below Denobla at the tail of Simha rashi marking Uttara Phalguni nakshatra. Shukra remains low to the western horizon all summer long.

Fig. 15: USA, west coast, dusk, Aug 13, 2024

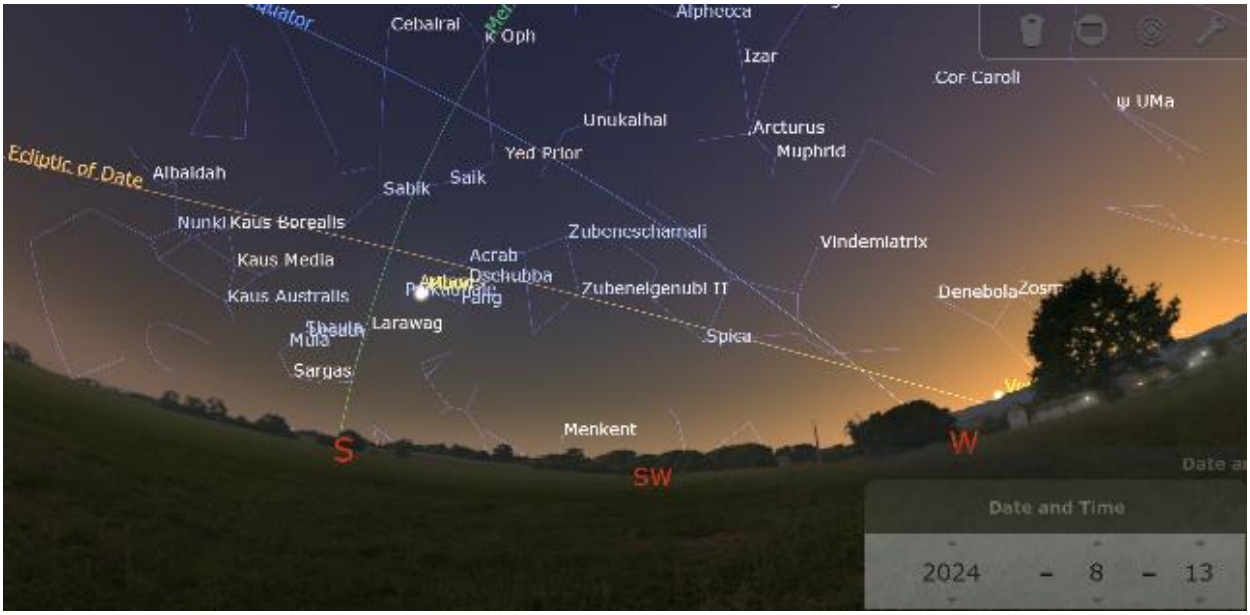
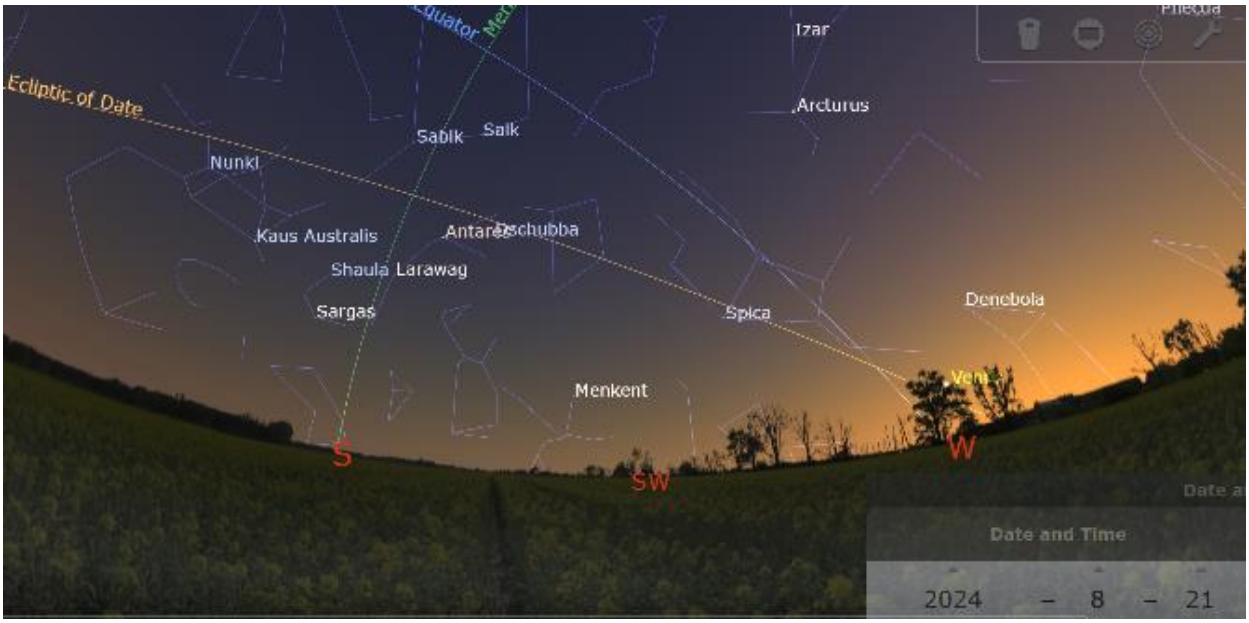


Fig. 16: India, dusk, Aug 21, 2024



Meanwhile in the morning sky, Mangala will pass by Guru. These two grahas form a yuti or conjunction on August 14th. In this particular conjunction, they will share both the same zodiacal degree of celestial longitude (east-west measurement along the ecliptic) and the same celestial latitude (north-south measurement from the ecliptic). Guru is further from Earth than Mangala, which puts Mangala in position to pass directly in front of, or occult, Guru which typically obscures the further graha from view. However, Guru appears larger and brighter than

Mangala in the sky and may therefore remain partially visible. For observers in India, the beginning of the occultation takes place at dawn. Mangala will be touching the upper west edge of Guru. For observers in the USA, Mangala will be in front of Guru. Mangala passes above Bellatrix in Orion marking Mrigashira nakshatra on August 16th.

Fig. 17: India, dawn, Aug 14, 2024

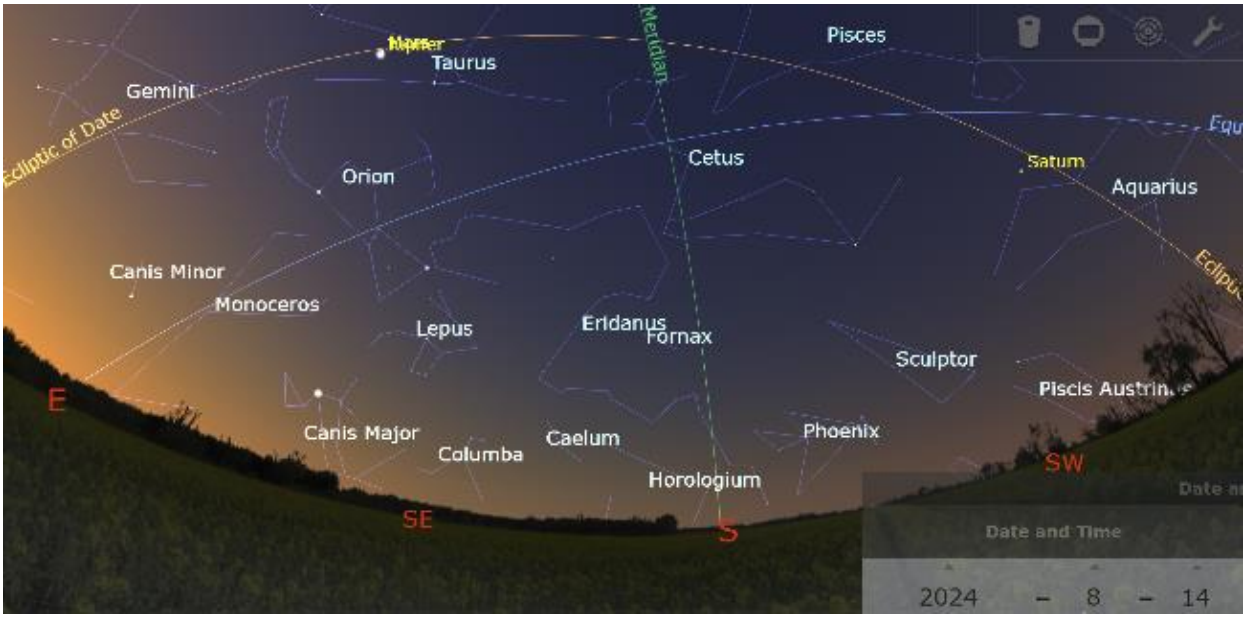
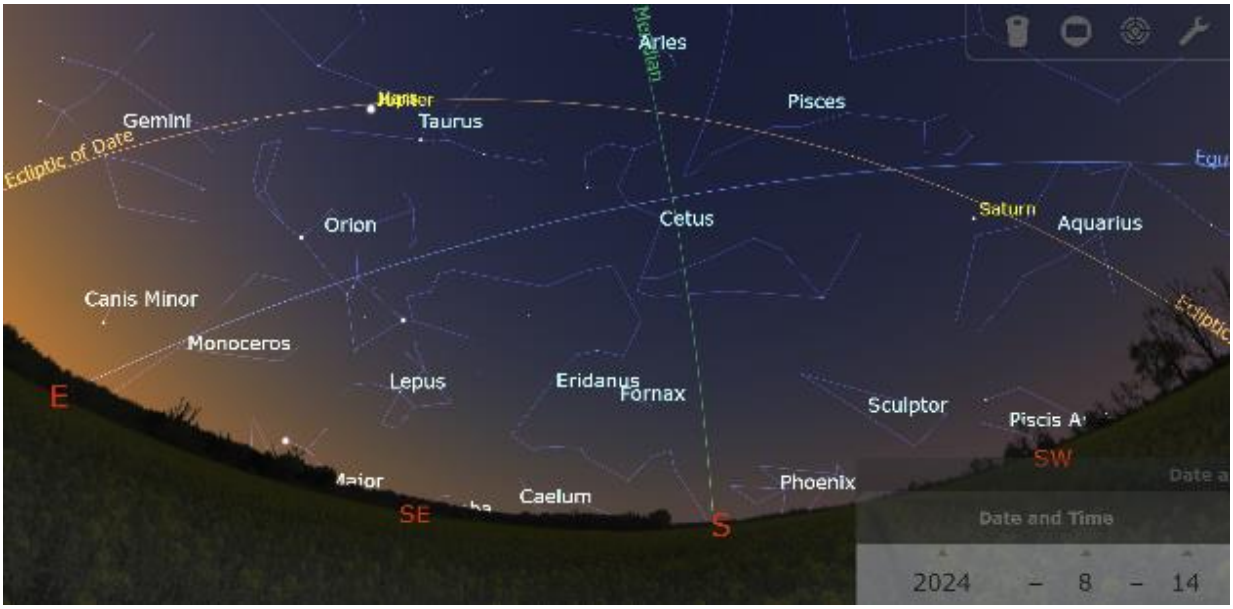


Fig. 18: USA, west coast, dawn, Aug 14, 2024



At the end of August, Chandra joins the morning grahas. Observers in the USA can locate Shani east of Chandra on August 20th and west of Chandra the following evening. Observers in India will find Chandra above and slightly east of Shani on August 21st. Guru passes above Bellatrix on August 21st.

Fig. 19: USA west coast, dawn, Aug 21, 2024

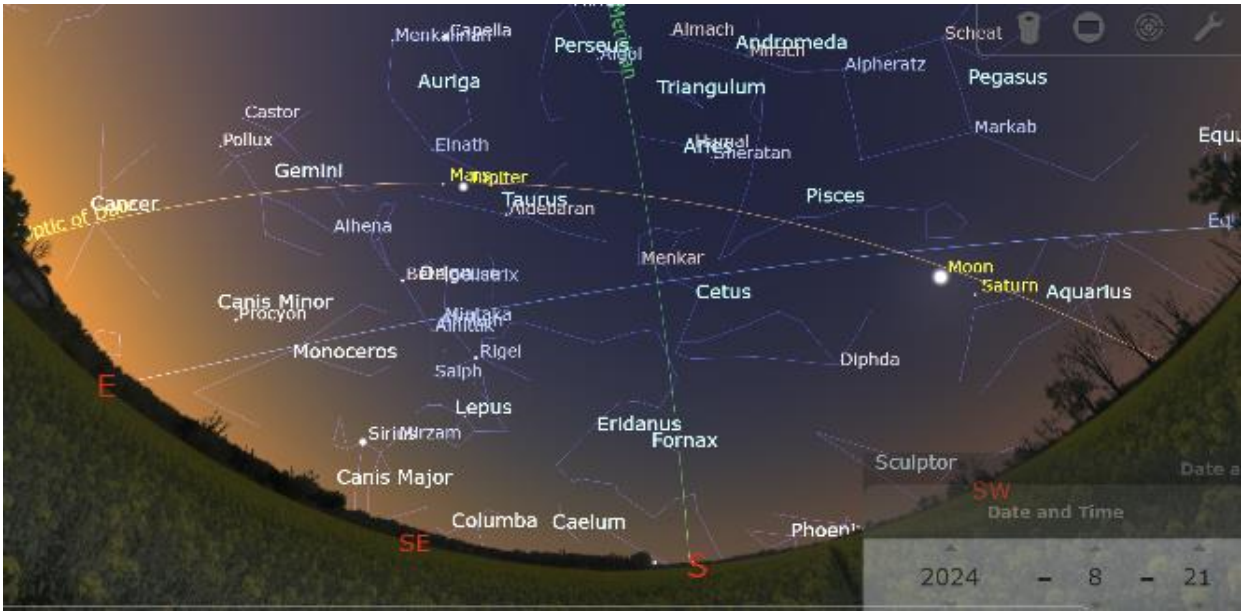
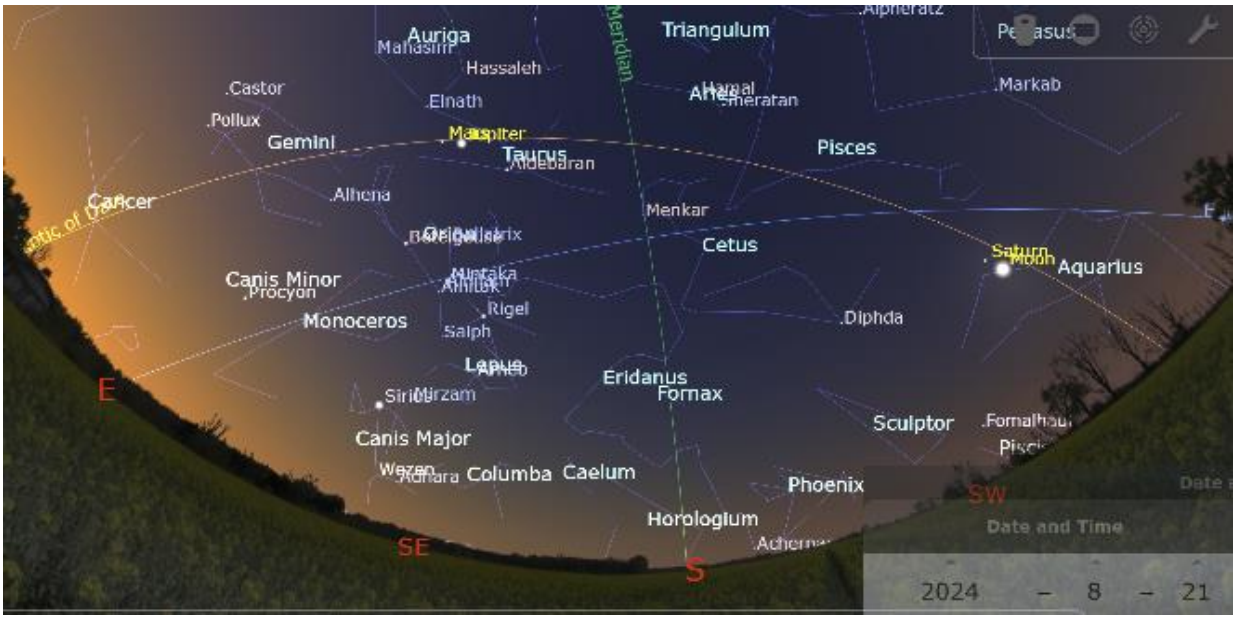


Fig. 20: India, dawn, Aug 21, 2024



Begin watching for Budha to appear in the morning sky around August 27th when Chandra joins Mangala and Guru. Budha's first morning appearance typically occurs around the date of its direct station. Observers in India will find both grahas east of Chandra on August 27th. The following morning Guru will be west of Chandra, and Mangala will be below Chandra. Observers in the USA will find Chandra above and between Mangala and Guru on the morning of August 27. On August 30th, Mangala passes above Betelgeuse in Orion marking Mrigashira nakshatra.

Fig. 21: USA, west coast, dawn, Aug 27, 2024

Fig. 22: India, dawn, Aug 28, 2024

Observers in the USA can locate Budha below and slightly east of Chandra on August 31st. Budha will be slightly below and west of Chandra on September 1st. Observers in India can locate Budha directly below Chandra on September 1st.

Fig. 23: India, dawn, Sep 1, 2024

Fig. 24: USA, west coast, dawn, Sep 1, 2024

Chandra joins Shukra in the evening sky in early September. Observers in the USA will find Shukra slightly above and east of Chandra on September 4th in the constellation marking Kanya

Rashi. The following evening, Shukra will be west of Chandra. Observers in India will find Shukra slightly above and west of Chandra on September 5th. Shukra passes beneath Porrima of Kanya rashi, the star that marks Hasta nakshatra, on September 6th. Five stars in Corvus the Crow (below) also mark Hasta nakshatra, however they will be invisible below the horizon. Notice that Shani becomes visible all night long during September, rising around sunset and setting as Surya rises. This occurs with the superior grahas (Mangala, Guru and Shani) in the middle of their retrograde periods when they are opposite Surya. The exact Surya-Shani opposition occurs on September 8th.

Fig. 25: India, dusk, Sep 5, 2024

Fig. 26: USA, west coast, dusk, Sep 5, 2024

Chandra joins Shani again at the end of summer. On the evening of September 16th observers in the USA will find Shani east of Chandra. By morning Shani will be at the lower west edge of Chandra. Observers in India will find Shani east of Chandra on September 16th and slightly west of Chandra on September 17th. By morning Shani will be below and west of Chandra. On September 18th Shukra passes above Spica, also known as Chitra, in Kanya rashi, marking Chitra nakshatra.

Fig. 27: USA, west coast, dusk, Sep 16, 2024

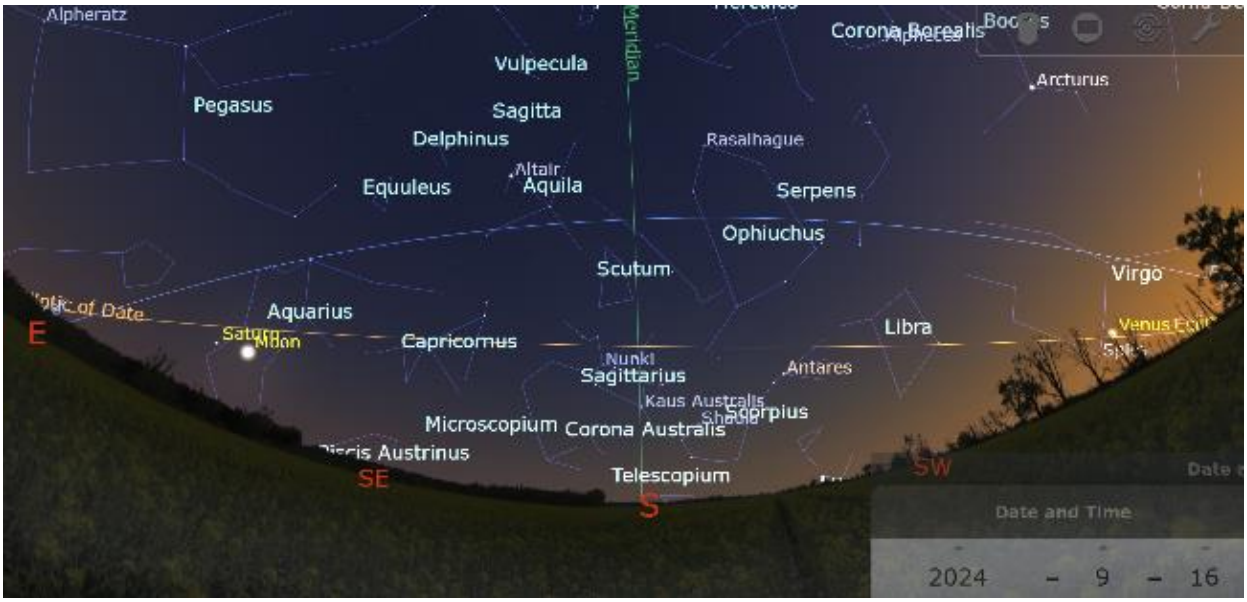


Fig. 28: India, dusk, Sep 17, 2024

Happy stargazing and planet tracking! Tune into the autumn issue of *The Comet* to see Shukra gain some height above the evening's horizon.