

July Sky 2024

at night

Notes from the
Smoky Mountain Astronomical Society
aka the SMAS



Remember the Zodiac?

Aries

Taurus

Gemini

Cancer

Leo

Virgo

Libra

Scorpio

(Ophiuchus)

Sagittarius

Capricorn

Aquarius

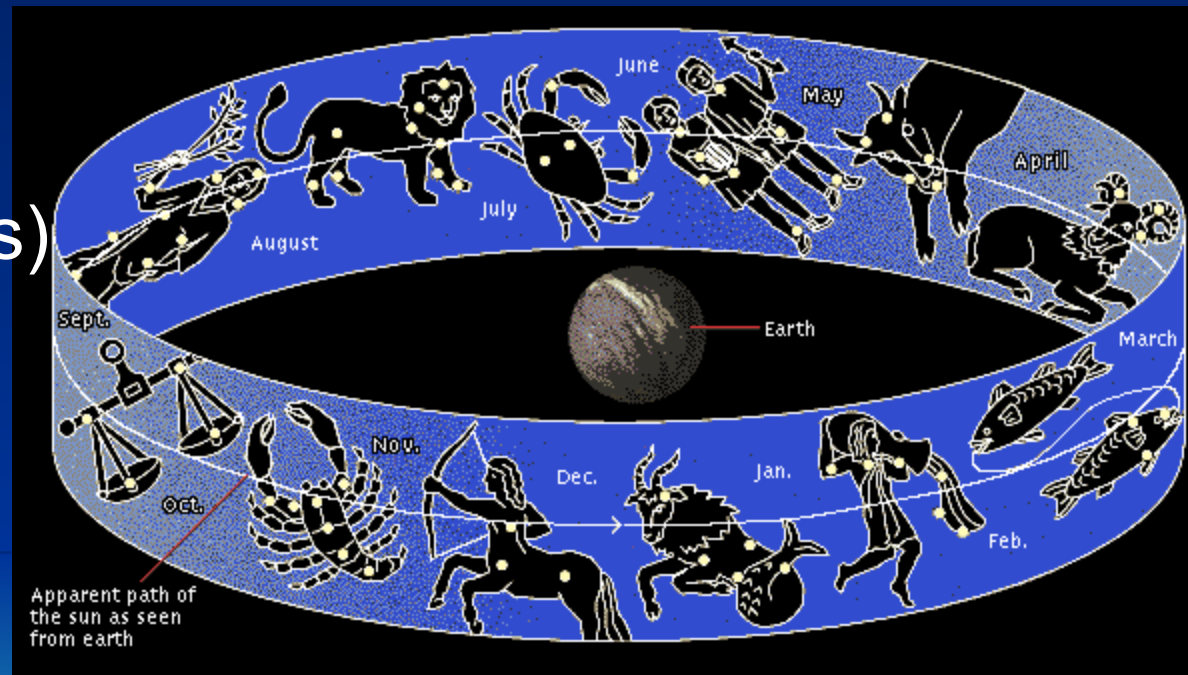
Pisces



How Do We Remember the Zodiac?


The Ramble Twins Crab Liverish; Scaly Scorpions Are Good Water Fish.


Aries	Libra
Taurus	Scorpio
Gemini	(Ophiuchus)
Cancer	Sagittarius
Leo	Capricorn
Virgo	Aquarius
	Pisces





Dates of the Zodiac?


The Ramble Twins Crab Liverish; Scaly Scorpions Are Good Water Fish.


 Aries (Ram): March 21–April 19


 Taurus (Bull): April 20–May 20


 Gemini (Twins): May 21–June 21


 Cancer (Crab): June 22–July 22


 Leo (Lion): July 23–August 22


 Virgo (Virgin): August 23–September 22


 Libra (Balance): September 23–October 23

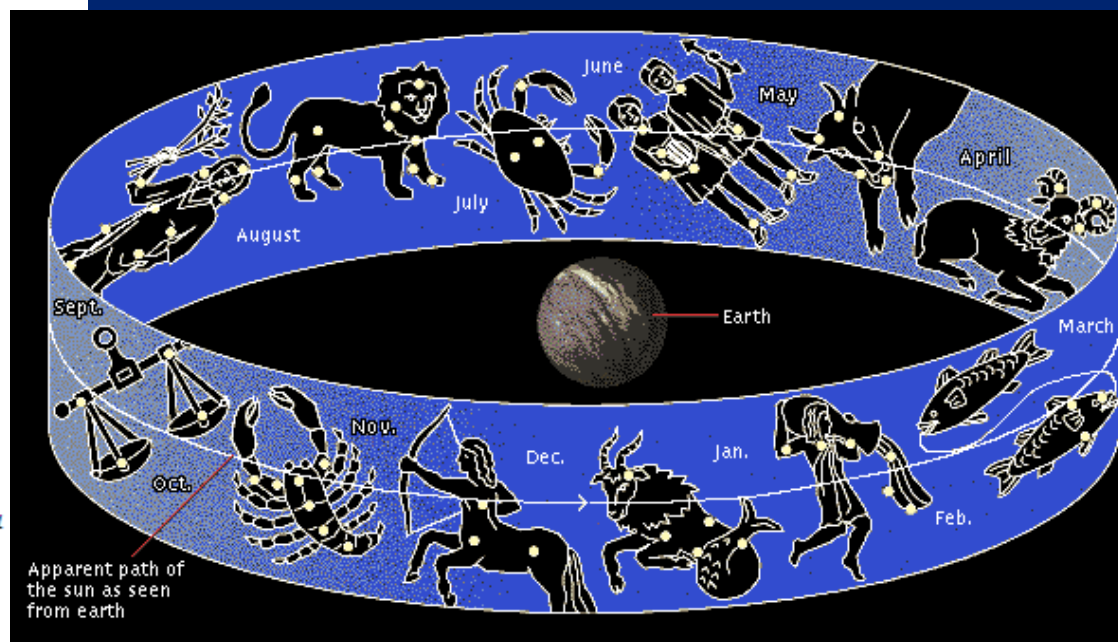
 Scorpius (Scorpion): October 24–November 21

 Sagittarius (Archer): November 22–December 21

 Capricornus (Goat): December 22–January 19


 Aquarius (Water Bearer): January 20–February 18


 Pisces (Fish): February 19–March 20





July Sun is in Zodiac Where?


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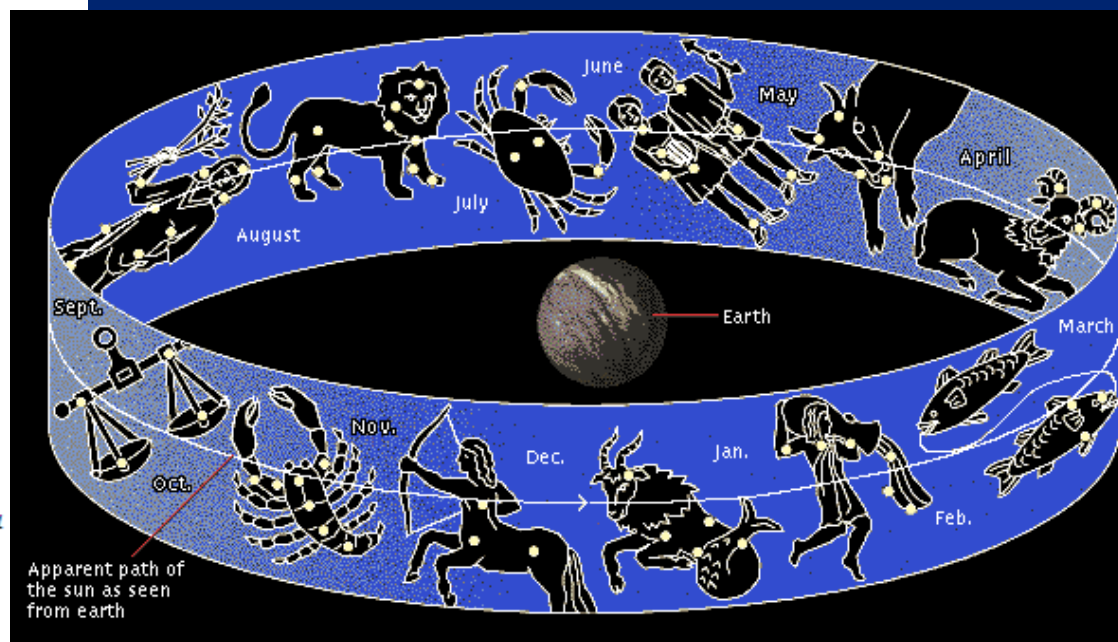
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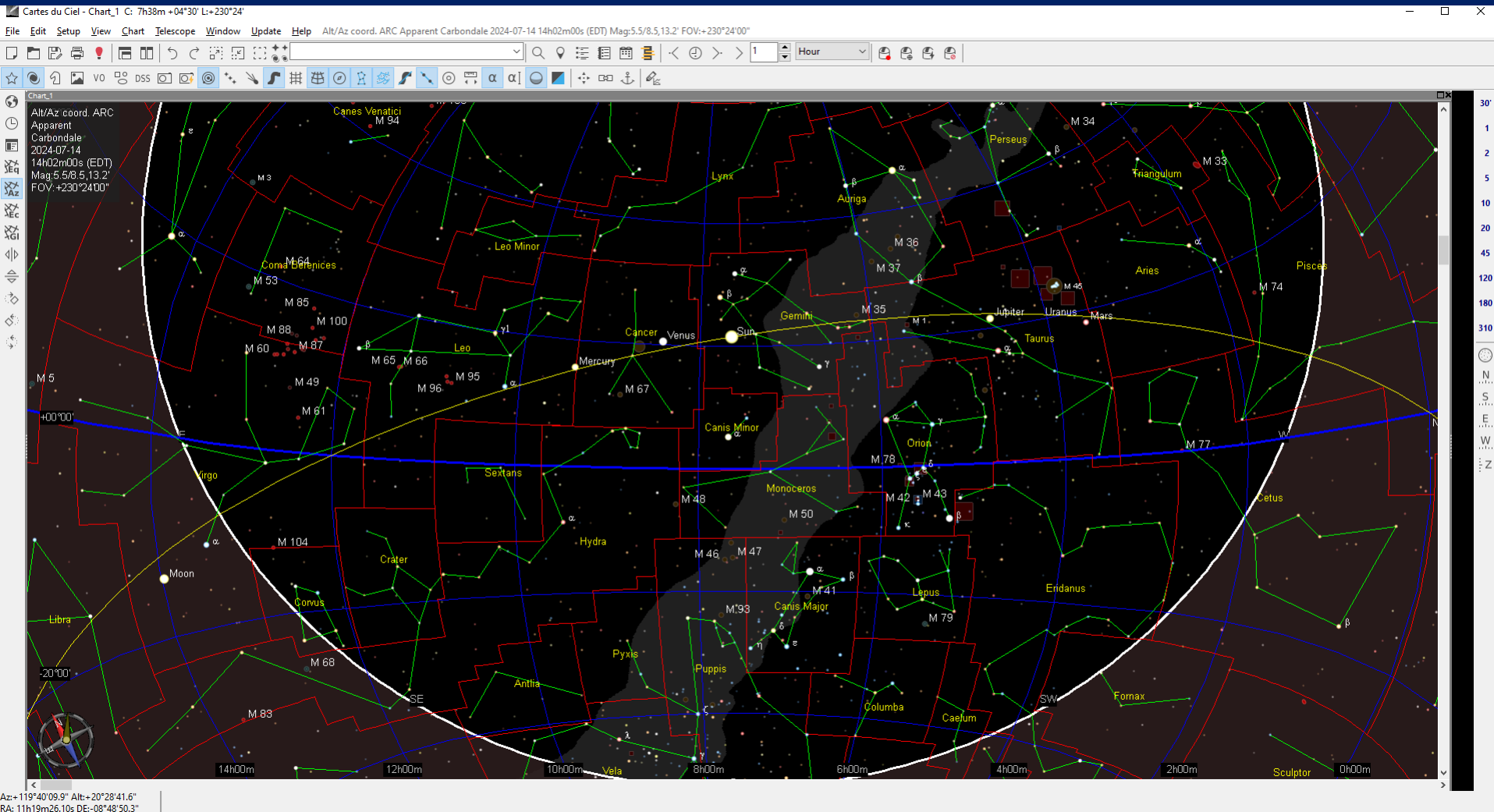
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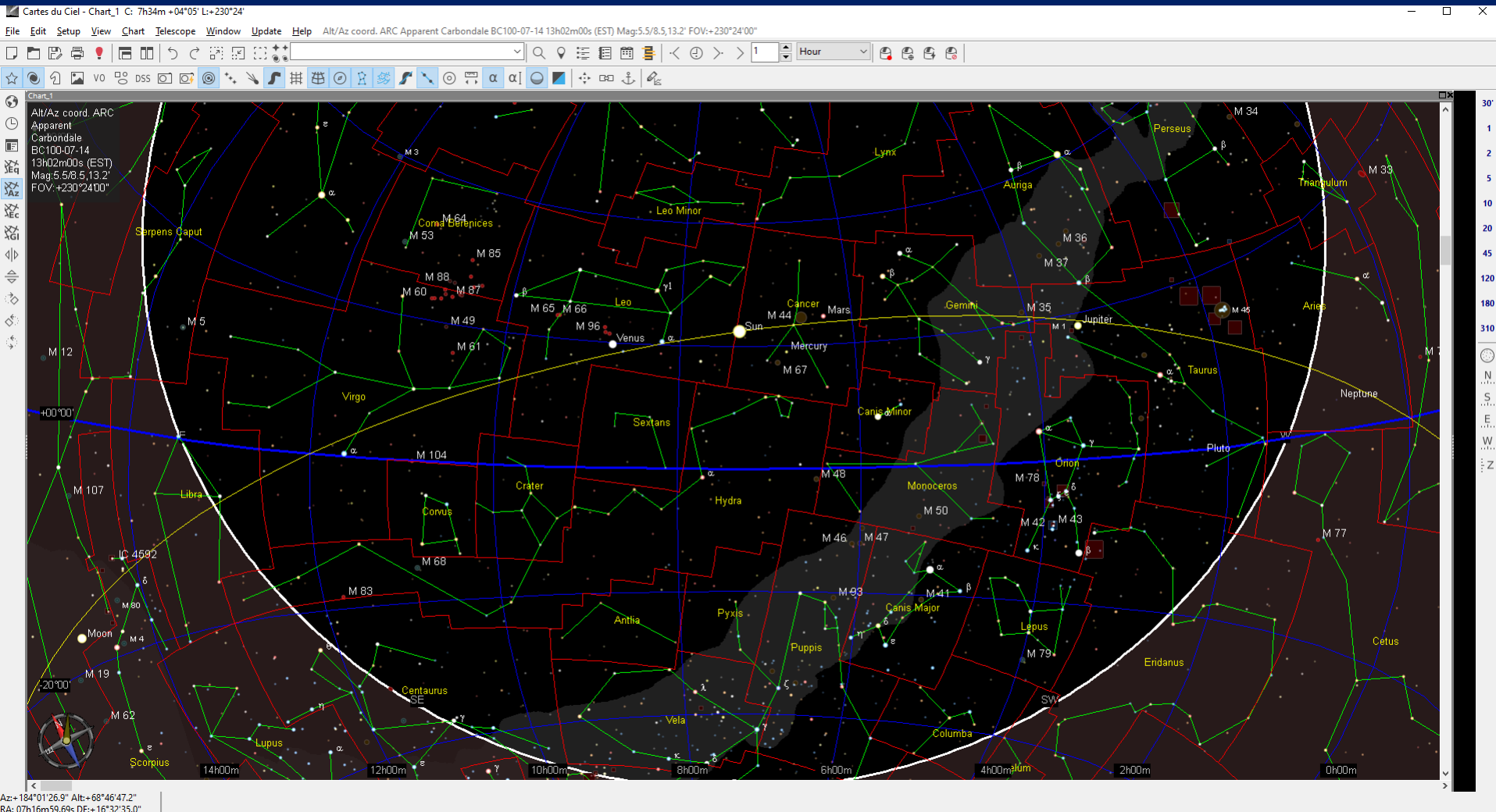
 Pisces (Fish): February 19–March 20



The Ramble Twins Crab Liverish;Scaly Scorpions Are Good Water Fish.



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Reflect Just How Bad Astrology Is.

Not only can Astrologers not predict the future
they **CANNOT** predict the present!

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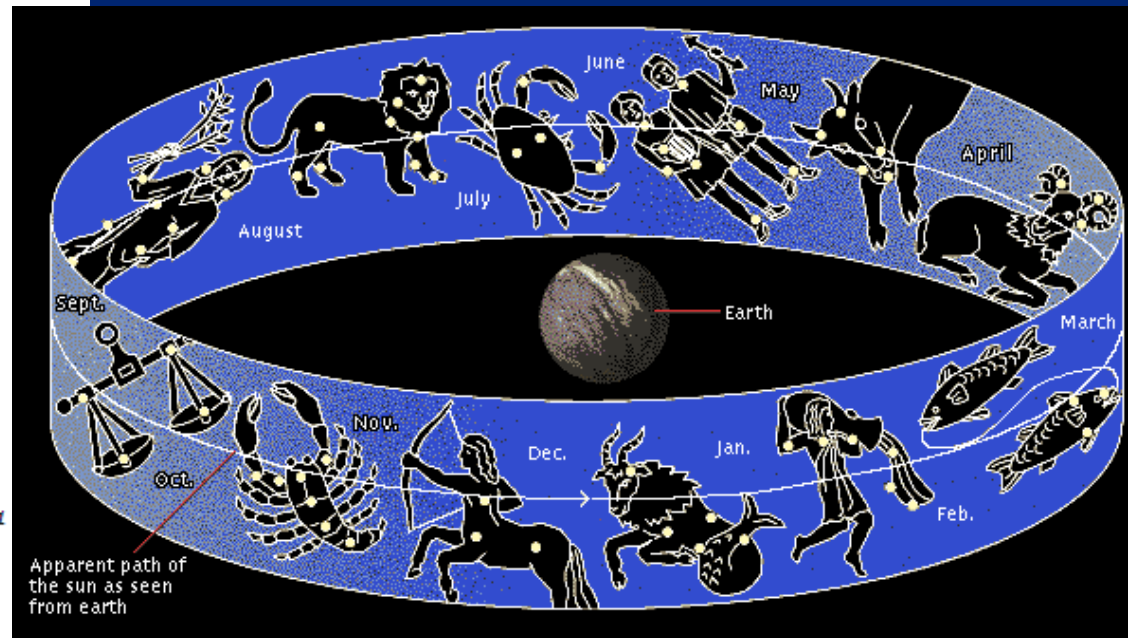
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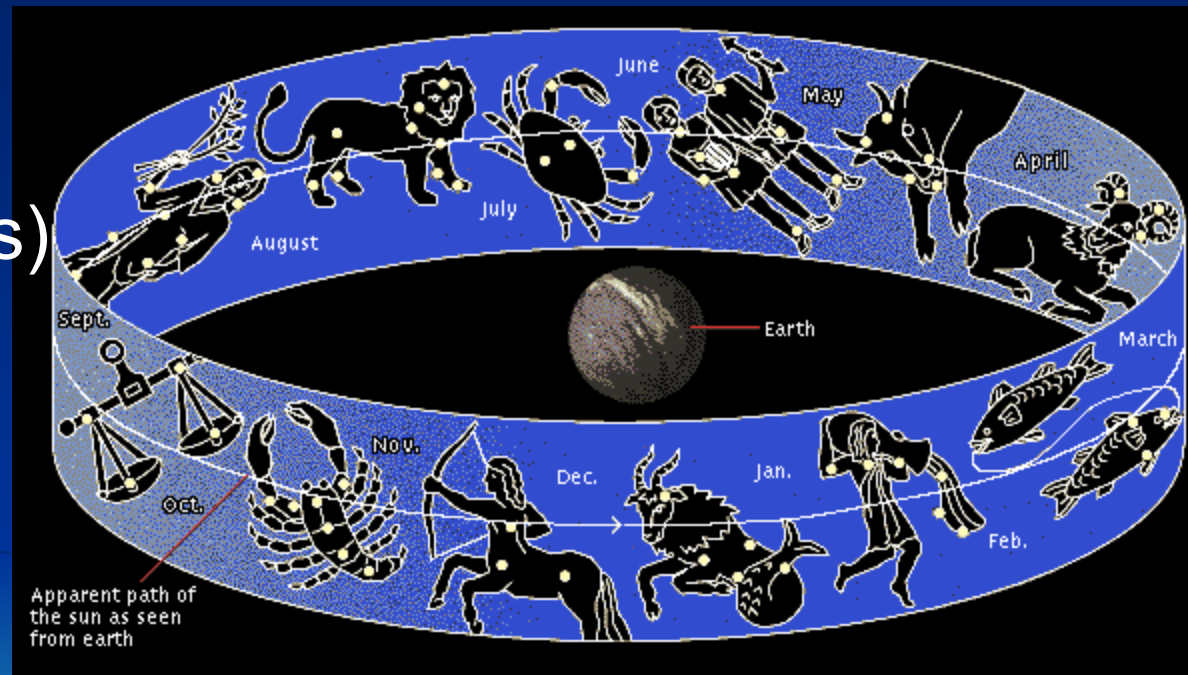
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Sun in Cancer, What is Night Sky? At Sunset? At Midnight?

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Gemini	(Ophiuchus)
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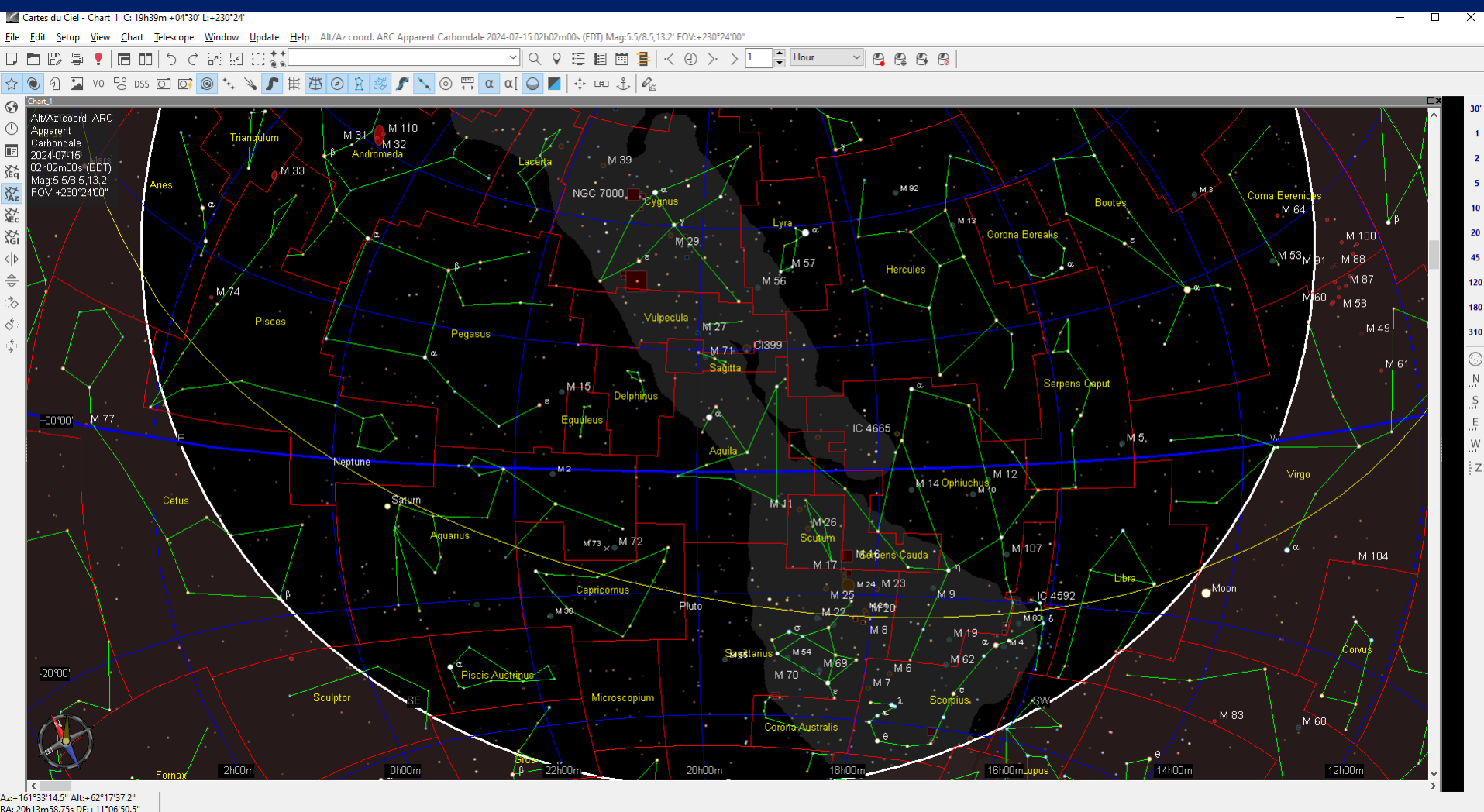


At Midnight (about 2 AM)

Milky Way, Scorpio and Sagittarius in the sky.

Moon has set.

Note Corona Borealis overhead to west.

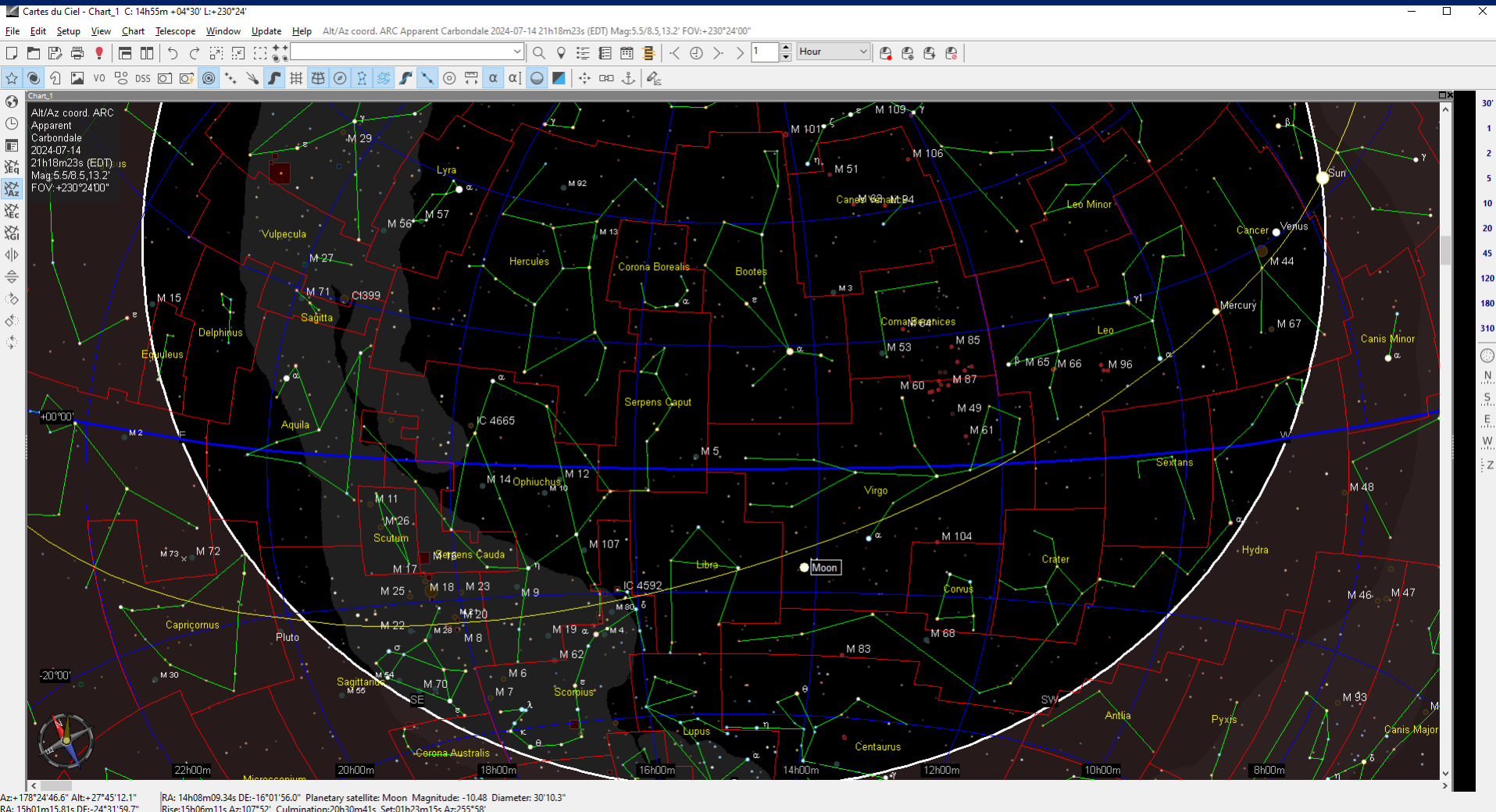


At Sunset

Milky Way low eastern horizon. Moon in Virgo.

Venus to west.

Ursa Major (Big Dipper Handle) high in North.

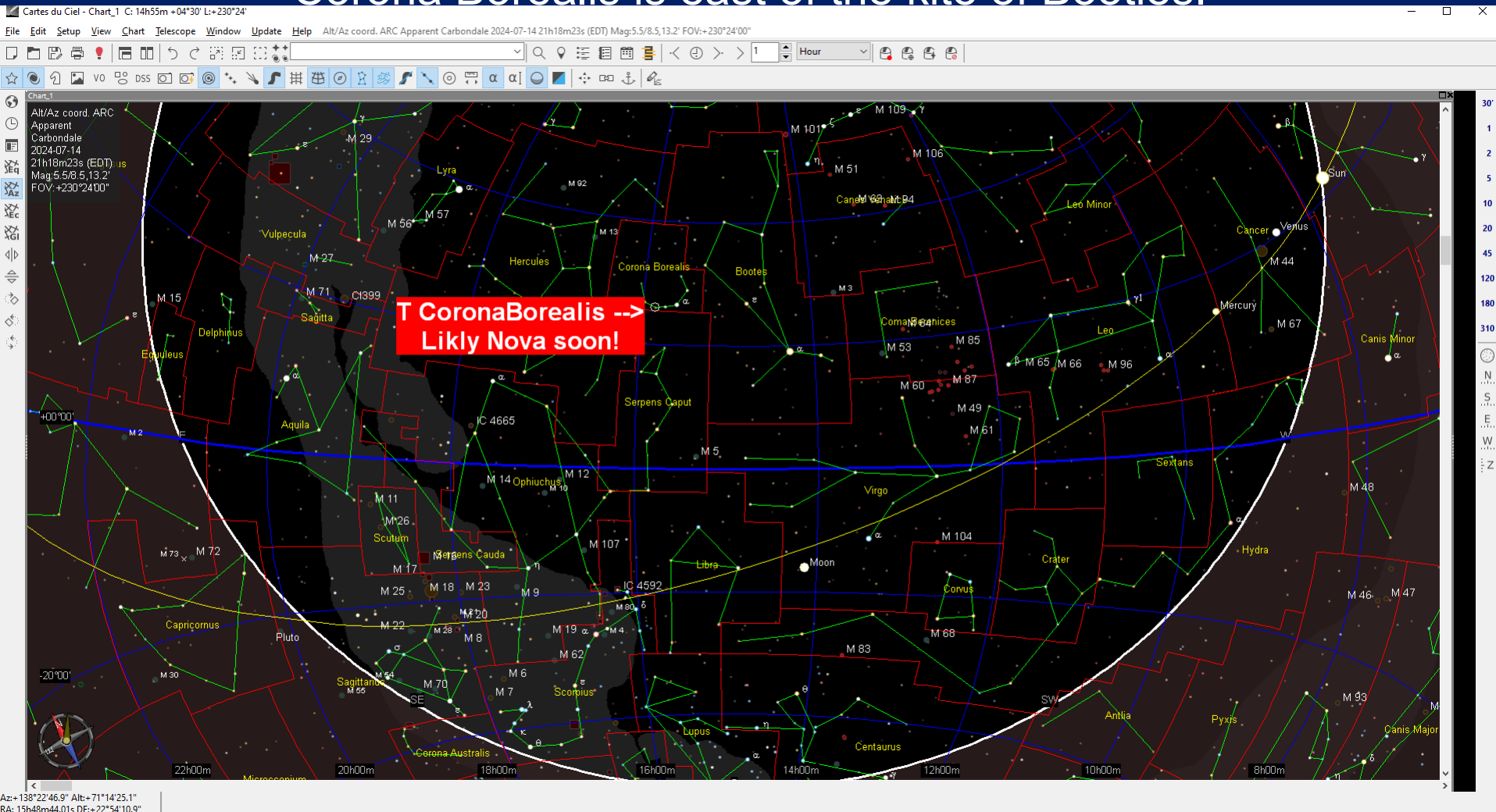


Sunset, Corona Borealis High.

A predicted nova for 2024,

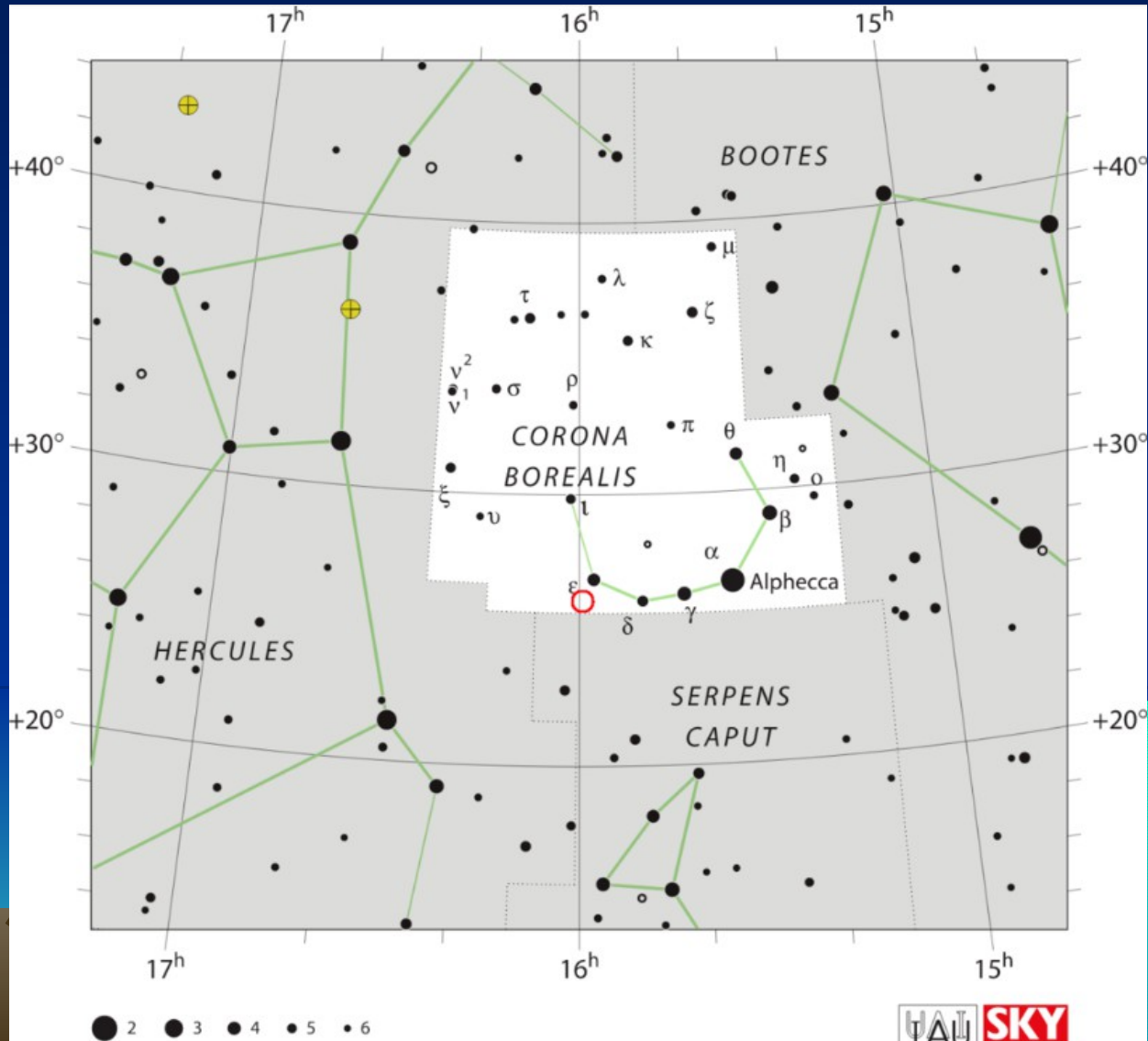
T CrB is a binary system, meaning a solar system with two stars.

Corona Borealis is east of the kite of Booties.



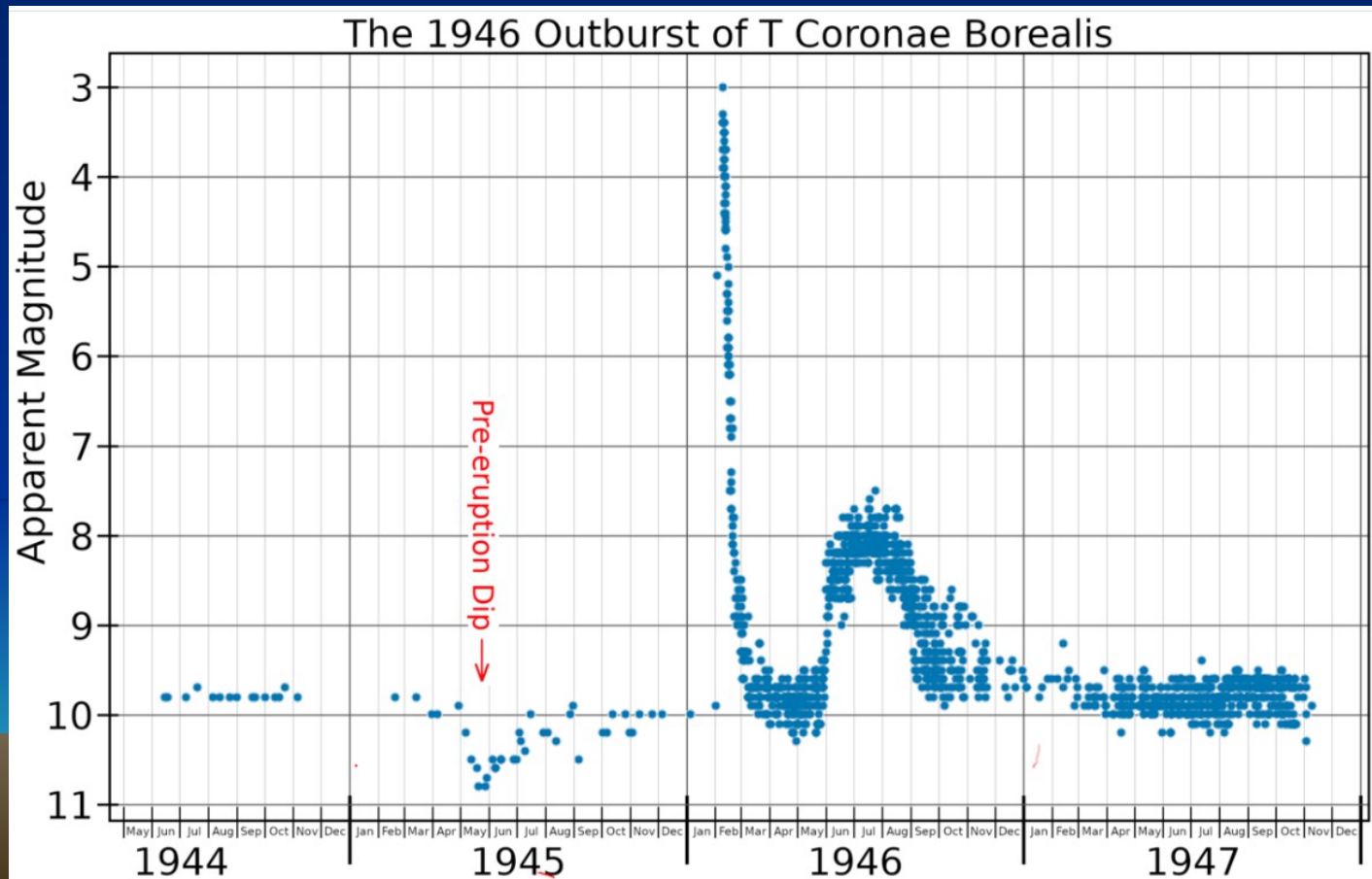
Location of T CrB

From: https://en.wikipedia.org/wiki/T_Coronae_Borealis



From Wikipedia

T Coronae Borealis (T CrB), nicknamed the Blaze star, is a recurrent nova in the constellation Corona Borealis.[11] It was first discovered in outburst in 1866 by John Birmingham,[12] although it had been observed earlier as a 10th magnitude star.[13] It may have been observed in 1217 and in 1787 as well.[14][15] It is expected to undergo an outburst again in 2024.



From AAVSO.ORG

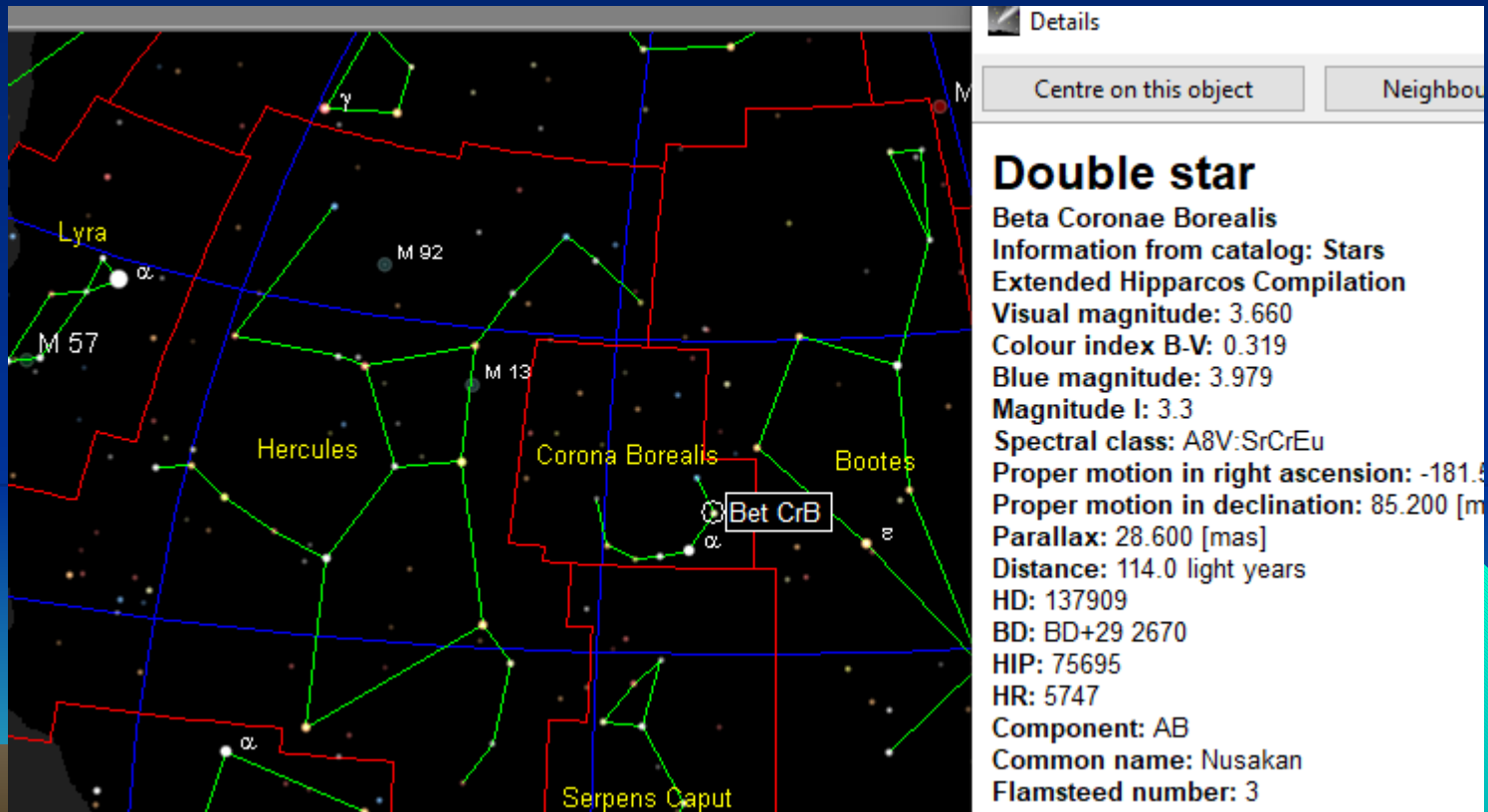
See: aavso.org/news/t-crb-pre-eruption-dip



The screenshot shows a web browser window with the address bar displaying aavso.org/news/t-crb-pre-eruption-dip. The browser's tab bar includes several open tabs: 'Mail - forrestericks...', 'Maryville, TN 10-D...', 'Maryville, TN Weat...', 'National Forecast C...', 'Astro', and 'How To Use | Foll...'. The AAVSO website header features the organization's logo on the left, a 'Login' button with a right-pointing arrow on the right, and a 'Who We Are' dropdown menu. Below the header, a breadcrumb trail reads 'Home / News and Announcements'. The main content area has a large title 'Announcing T CrB pre-eruption dip' and a subtitle 'Recurrent nova T CrB has just started its Pre-eruption Dip in March/April 2023, so the eruption should occur around 2024.4±0.3'. The authors are listed as 'B. E. Schaefer (Louisiana State Univ.), B. Kloppenborg (AAVSO), E. O. Waagen (AAVSO), and the AAVSO observers'. The text body begins with 'T Coronae Borealis (T CrB) is a famous recurrent nova with known eruptions in the years 1217, 1787, 1866, and 1946. Many workers have realized that the rise in brightness from its low state (1954.5 to 2015.0) to its high state (2015.0 to the present) is a precursor and harbinger for an upcoming eruption around 2025.5±1.3 or so (Munari et al. 2016; Schaefer 2023). A distinct and under-appreciated close-up harbinger is the unique and mysterious Pre-eruption Dip (Schaefer 2023). The Dip in 1945-1946 started around 1945.0 (1.1±0.3 years before the 1946 eruption), with the B-band magnitude fading from near 10.5 to 12.0 mag, while the V-band magnitude faded from around 9.8 to 12.3 mag. This fading ended abruptly with the nova eruption.'

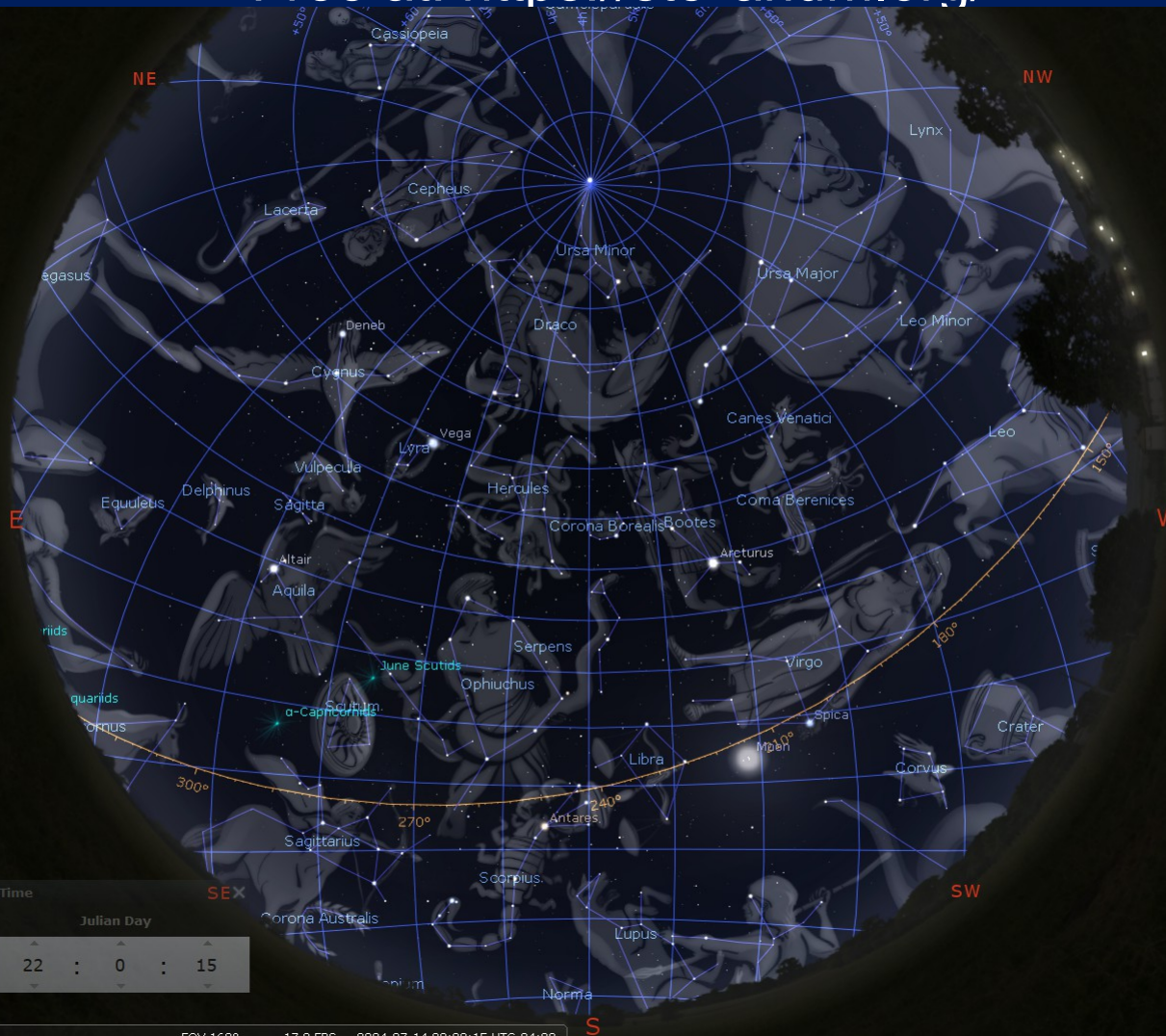
From Cartes du Ciel

If T Coronae Borealis (T CrB), reaches third magnitude, it will be brighter than all but the alpha star in the crown. The second brightest star is magnitude 3.66. (Alpha CrB is magnitude 2.2)



Night Sky in Stellarium

Free at: <https://stellarium.org/>



Date and Time										SEX
Date and Time					Julian Day					
2024	-	7	-	14	22	:	0	:	15	

Earth, +35°41'18", -84°04'36"

FOV 168°

17.9 FPS

2024-07-14 22:00:15 UTC-04:00

With Babylonian Art Work!



Date and Time										SEX
Date and Time					Julian Day					
2024	-	7	-	14	22	:	0	:	15	

Stellarium

Babylonian, Mul.Apin Art Work!



Babylonian, Mul.Apin Art Work!

Note Corona Borealis becomes Asterism of Dignity

Virgo becomes furrow with wheat

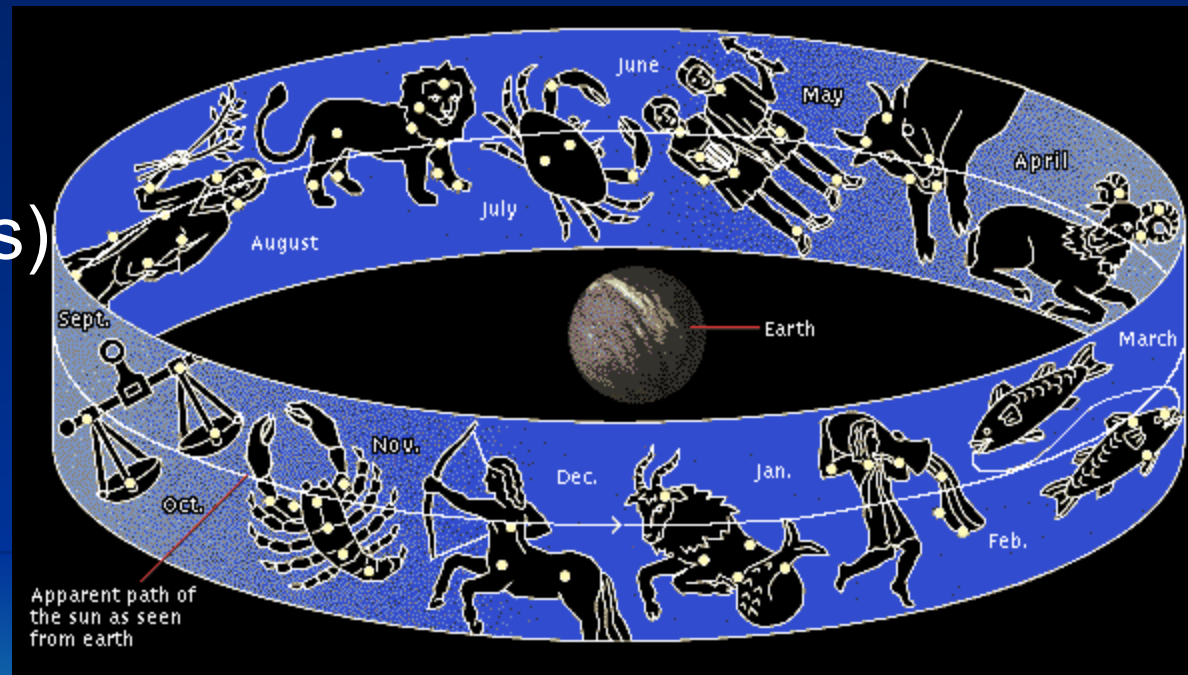
Corvus is a Raven, Moon is SIN, Sagittarius is an archer.



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July 12-August, Perseid Metors

<https://earthsky.org/astronomy-essentials/everything-you-need-to-know-perseid-meteor-shower/>

Duration of shower: July 14 to September 1.

Predicted peak: The peak is predicted** for August 12, 2024, at 14:00 UTC. So the mornings of August 11, 12 and 13 are probably your best bet.

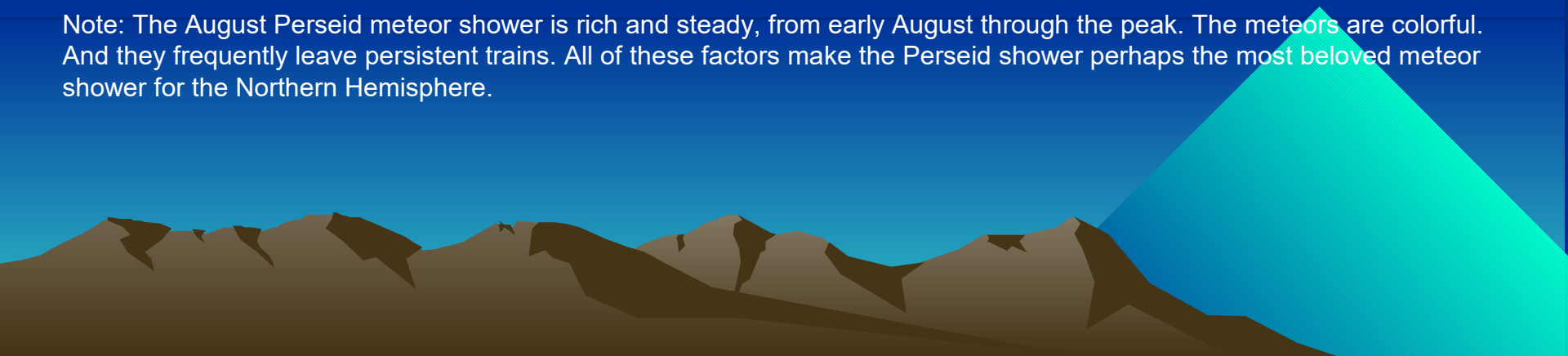
When to watch: The moon will be a 1st quarter and 50% illuminated during 2024's peak of the Perseid meteor shower. So the best time to watch for Perseids will be starting around midnight until dawn. This shower rises to a peak gradually, then falls off rapidly. And Perseid meteors tend to strengthen in number as late night deepens into the wee hours before dawn. The shower is often best just before dawn.

Radiant: The radiant rises in the middle of the night and is highest at dawn. See chart below.

Nearest moon phase: First quarter moon falls at 15:19 UTC on August 12. And a 1st quarter moon sets around midnight, so you'll have dark skies after then until dawn.

Expected meteors at peak, under ideal conditions: Under a dark sky with no moon, skywatchers frequently report 90 meteors per hour, or more.

Note: The August Perseid meteor shower is rich and steady, from early August through the peak. The meteors are colorful. And they frequently leave persistent trains. All of these factors make the Perseid shower perhaps the most beloved meteor shower for the Northern Hemisphere.



Review

- Sunset, Lion is to west. Big Dipper high.
- Moon under Libra the scales.

Learn to find Coroneae Borealis and watch for a “new” star or jewel in the crown.

- Meteors for weeks.



Your Most Accurate Horoscope

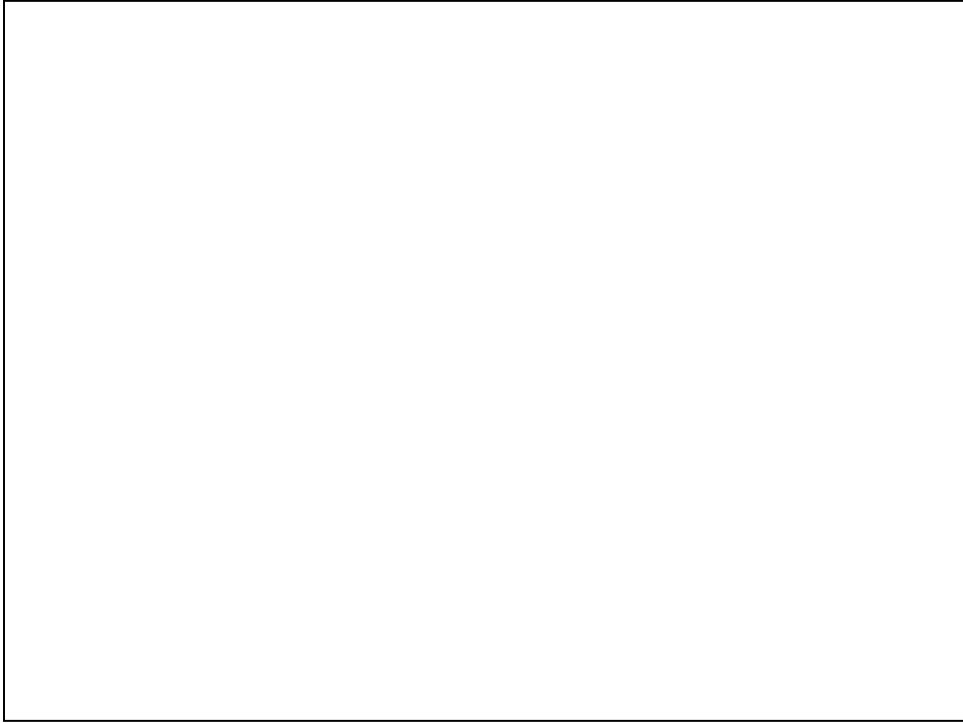
Unless you go out to look,...

<i>Aries</i>	The stars and planets will not affect your life in any way.
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<i>Aquarius</i>	The stars and planets will not affect your life in any way.
<i>Pisces</i>	The stars and planets will not affect your life in any way.

So, GO OUT AND LOOK!



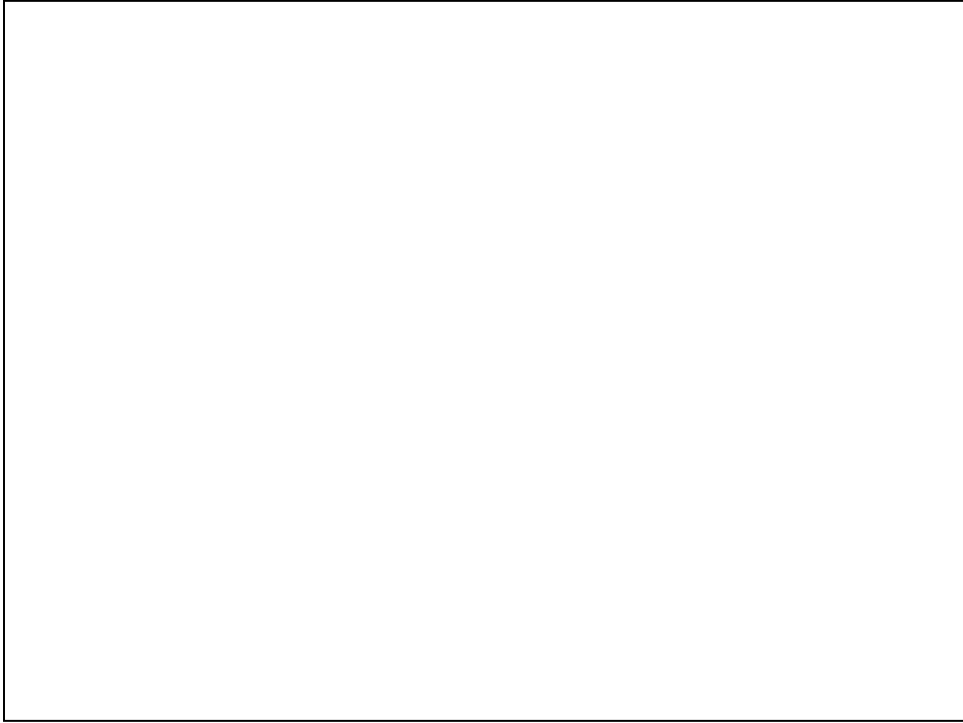
?



Review.

Any questions?

Have I confused anyone?



So get out and look!