



February 2024 Astronomy Report



- **Moon:**
 - Phases
 - Schiller crater (odd shape)
- **Planets:**
 - Morning planets
 - Venus & Mars very low on eastern horizon
 - Mercury reaches solar conjunction on February 28
 - Evening planets
 - Jupiter most visible planet this month
 - Saturn very low on western horizon, reaches superior conjunction on February 28
 - Uranus & Neptune binocular targets
- **Comets/Asteroids:**
- **Dark Sky Star Party:**
 - Location - Amberwood Ct, February 10
- **Public Viewing:**
 - Cub Lake, February 17

Moon - Phases

February 2 - Last Quarter (Libra)



Apogee (252K miles) - 25th
Perigee (223K miles) - 10th

February 9 - New Moon

February 15 - First Quarter (Aries)



February 24 - Full Moon (Leo)



Moon - Schiller crater (unusual elongation)



Dimensions:

*112 miles long
44 miles wide
2.5 miles deep*

Theories:

*Single projectile at a
grazing angle*

*Multiple projectiles at
the same moment*



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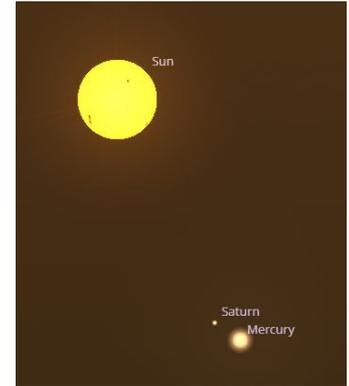
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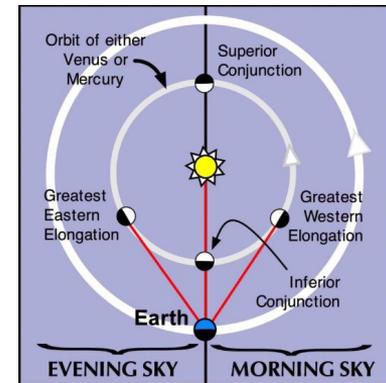
- Cub Lake, February 17



Morning: Venus/Mars/Mercury/Moon - (Sagittarius, Capricornis)

Mercury reaches solar conjunction on February 28

February 7, 6:15 am



Morning: Venus/Mars - (Capricornis)

Venus approaching Mars during February; very low on horizon

Mars slowing increasing in altitude, will take a few months to reach easy observation



Evening: Jupiter - (Aries)

Jupiter high in southern sky at twilight; sets by 11:30 pm by end of February



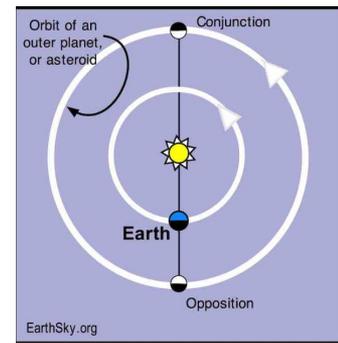
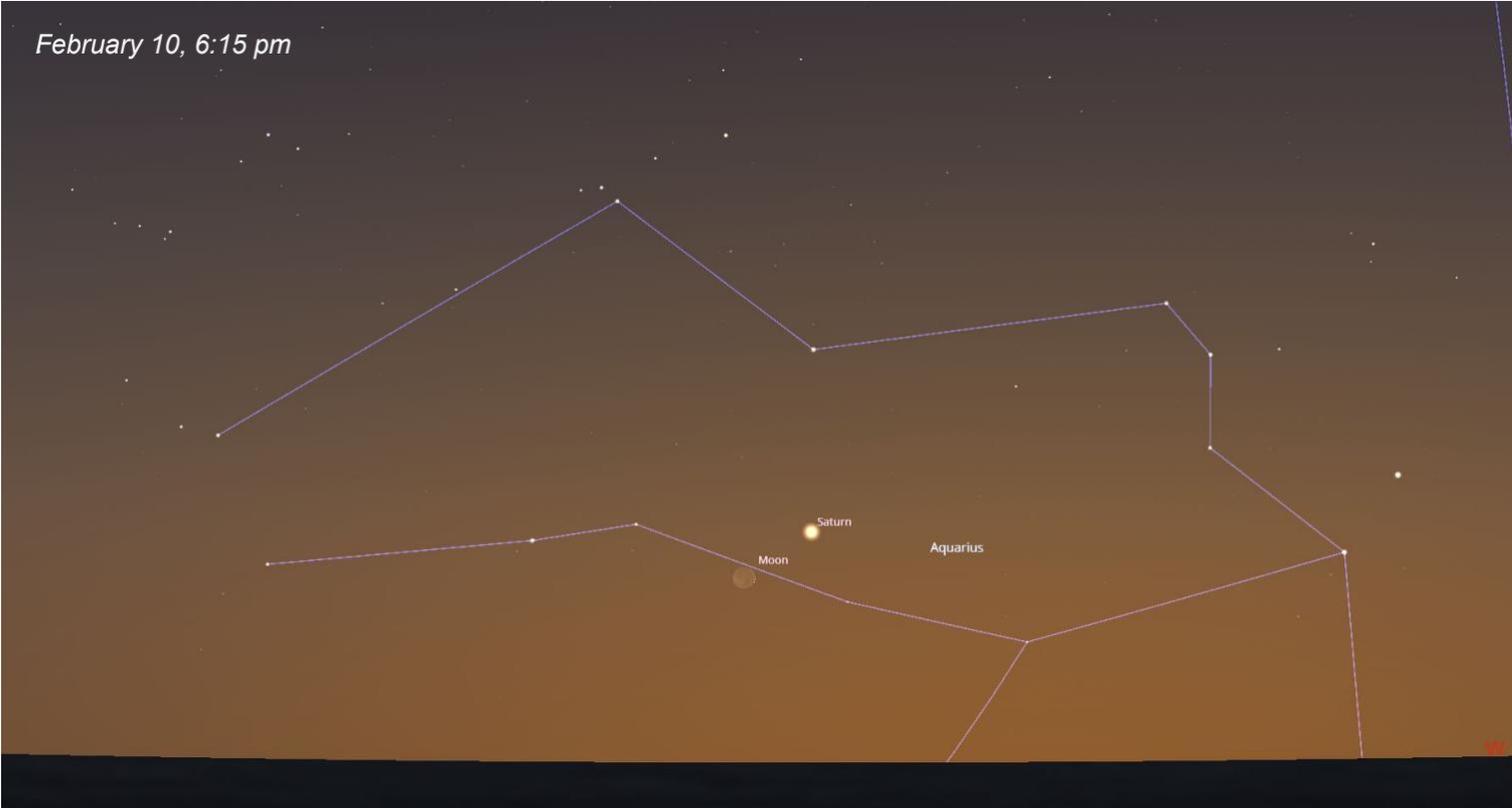
Jupiter and its four Galilean moons, visible in binoculars

Evening: Saturn - (Aquarius)

Lost in twilight after 2nd week of February

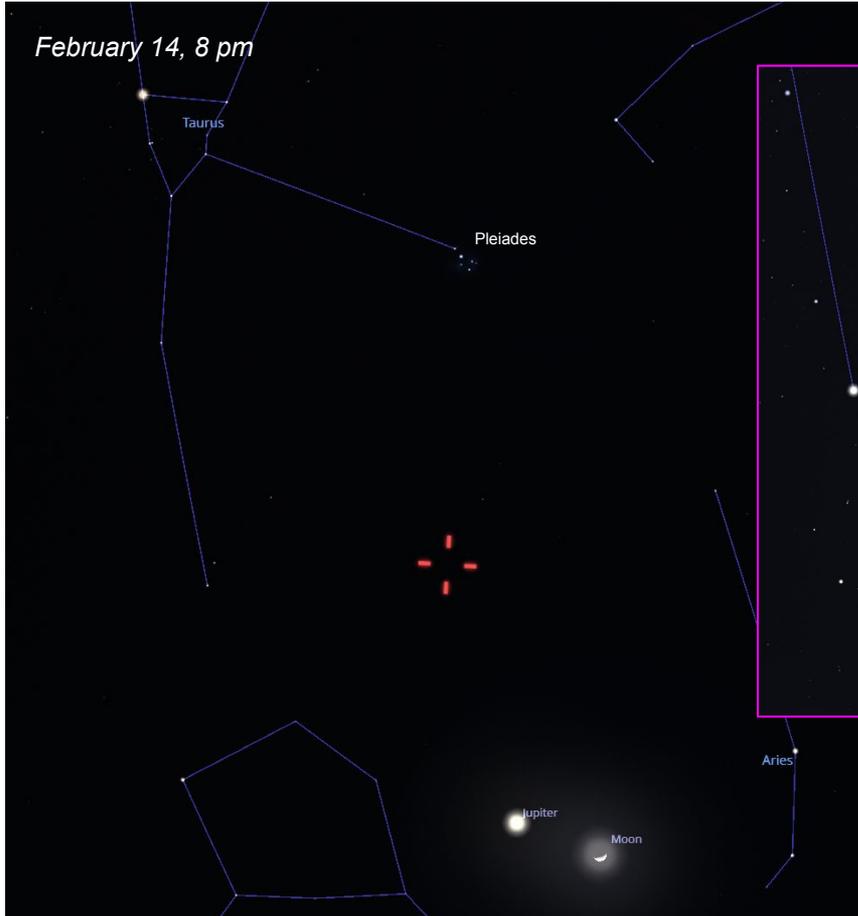
Reaches superior conjunction on Feb. 28 and will reappear in morning sky in late March

February 10, 6:15 pm



Evening: Uranus - (Aries, Taurus)

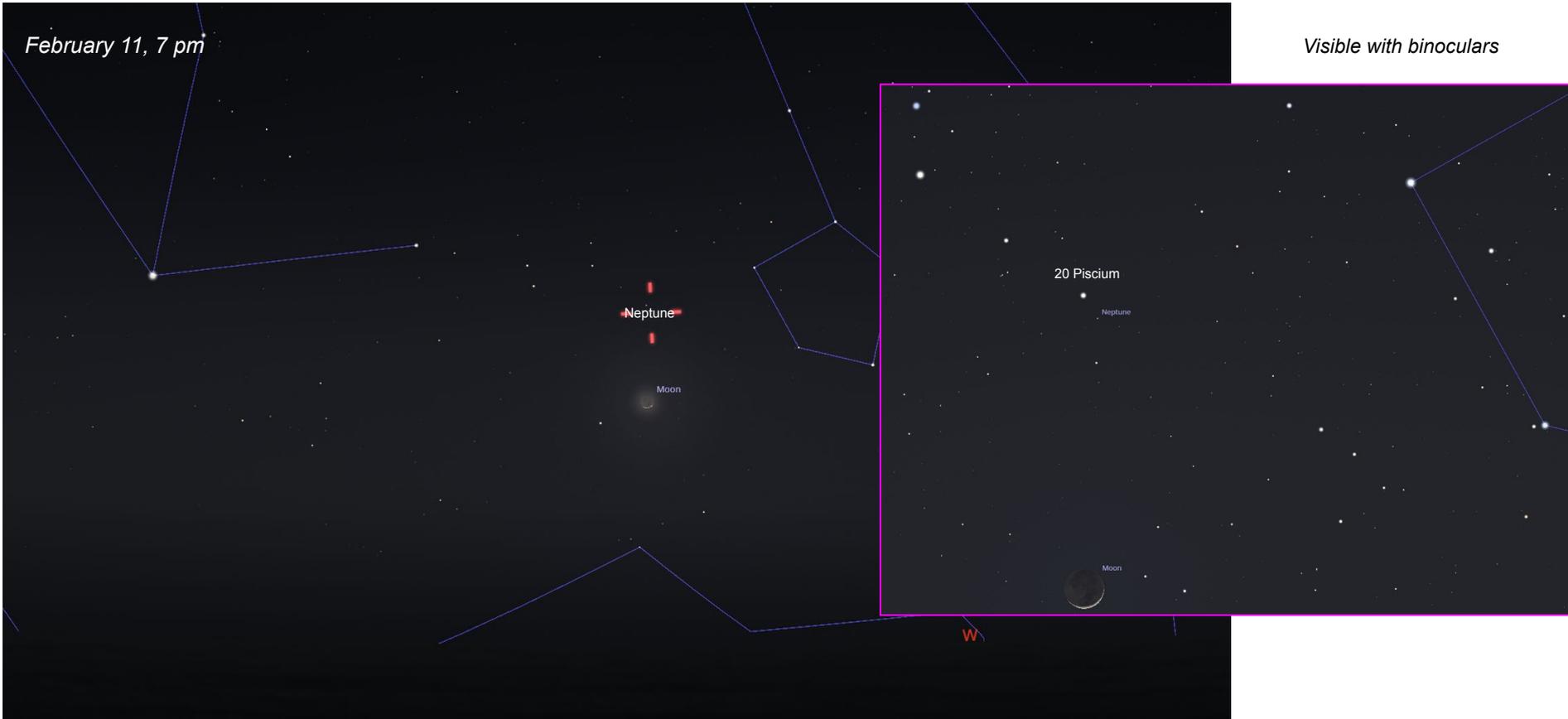
Uranus viewed between the Pleiades and Jupiter in SW sky



Uranus stands 20 AU from Earth by end of February

Evening: Neptune - (*Pisces*)

Neptune visible in early evening in Pisces, sets by 7 pm by end of February



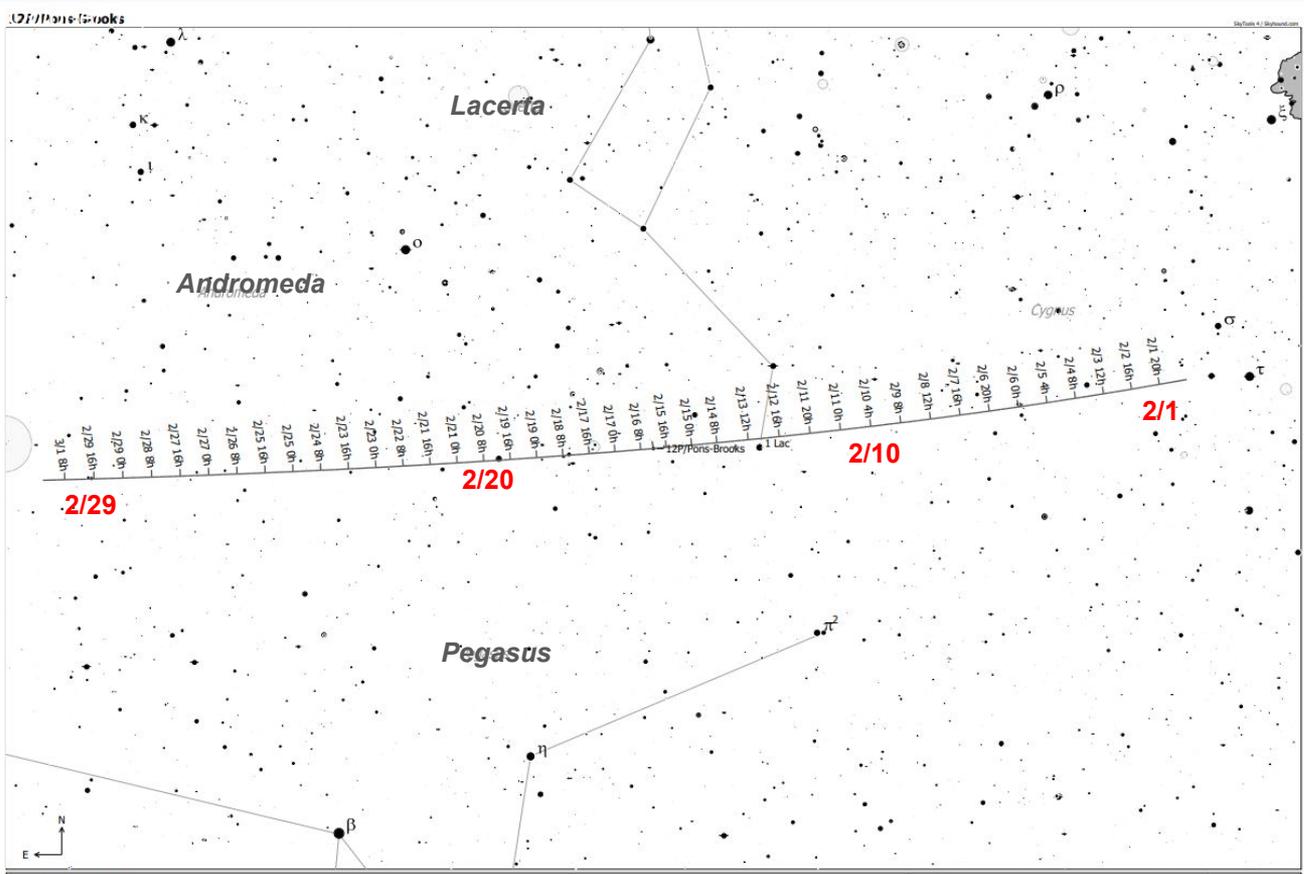


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Comet Search 12P/Pons-Brooks



12P/Pons-Brooks (Comet)
 Magnitude: 7.54 Coma Diameter: 3.9' SB: 19.1 Mag/arcsec² Earth Distance: 1.8 AU

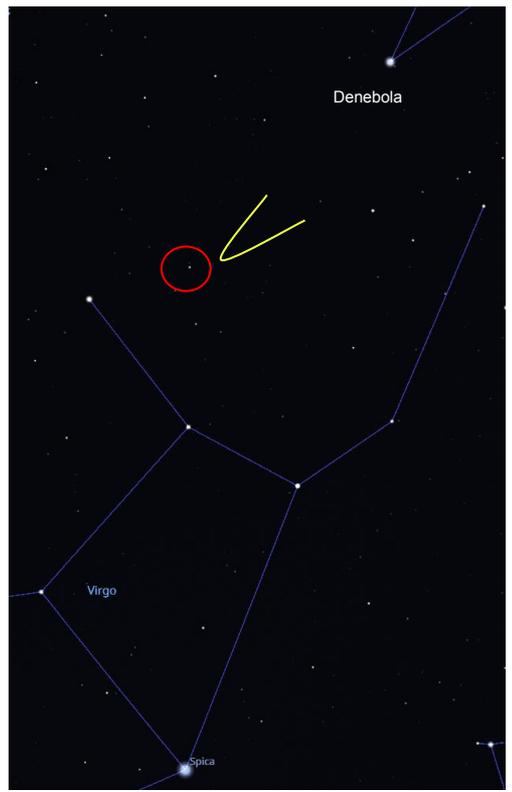
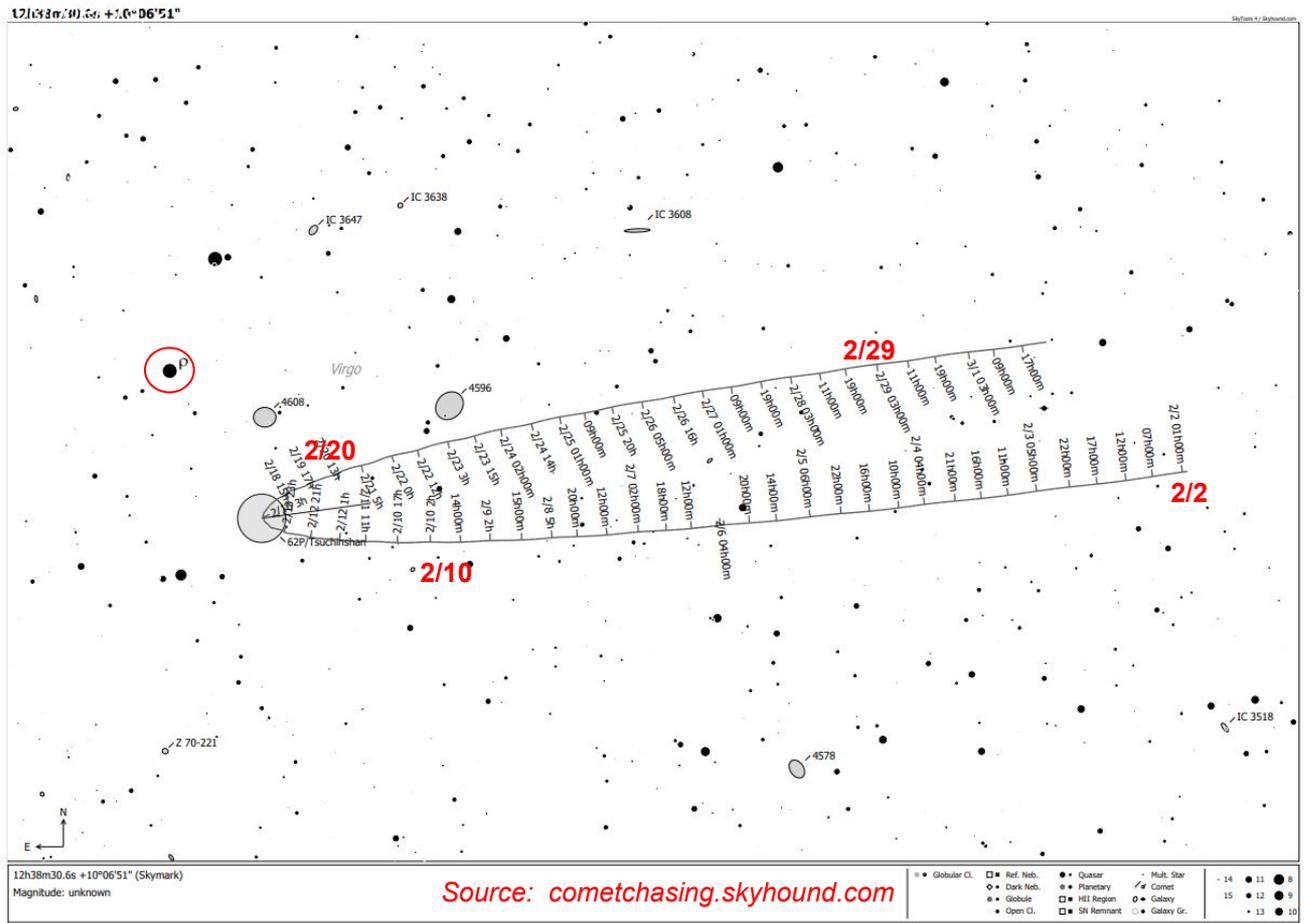
Source: cometchasing.skyhound.com

• Globular Cl.	◻ Ref. Neb.	• Quasar	• Multi. Star
◊ Dark Neb.	• Planetary	• Comet	• Galaxy
• Globule	◻ HI Region	• Galaxy	• Galaxy Gr.
• Open Cl.	◻ SN Remnant	• Galaxy Gr.	



Visible with binoculars on January 18, small telescopes preferred, should brighten in March

Comet Search 62P/Tsuchinshan



Between Leo and Virgo constellations in SE sky
Visible in 6-inch telescopes (early morning)

Asteroid Search Vesta

Even if you don't have time — or it's too cold — for a "proper" observing session, you can still snag an asteroid in the time it takes to play a typical song.

Binoculars or a grab-n-go mini-scope will readily reach 8th magnitude from most suburbs. Main-belt asteroid 4 Vesta fades through magnitude 7.5 this month, **sitting one binocular field of view north of Zeta (ζ) Tauri, the star at the east end of the Bull's southern horn**. In a dark sky, you'll pass by M1, the Crab Nebula. Thanks to all the dust in this part of the Milky Way, there is nothing to confuse you in this sparse backdrop. Avoid the 16th through the 19th, when the Moon is nearby, casting its glare all over.

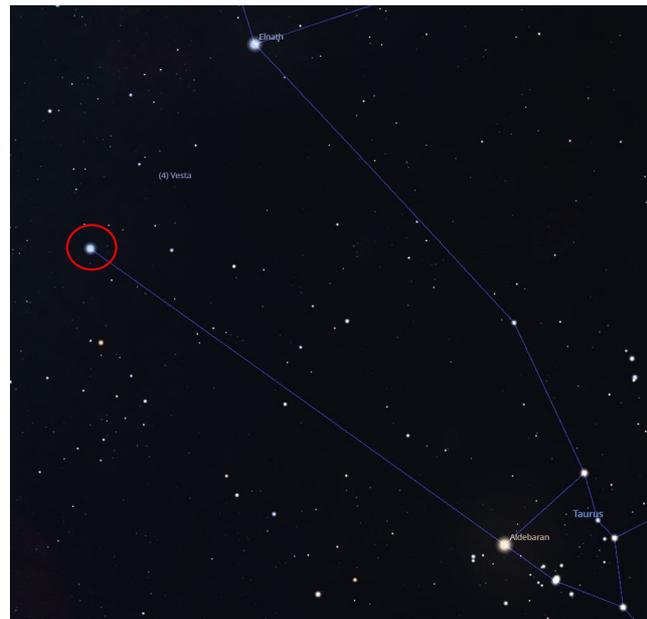
Normally you can spot an asteroid shift against the background over the course of at least one evening each month, but not this time. Vesta is finishing its westward travel and backtracking to the east very slowly. This apparent retrograde loop is caused by the faster Earth overtaking Vesta on the inside track of our not-quite-circular orbits around the Sun. You might need four nights to notice a displacement.

Vesta spans some 300 miles, the second-largest object in the main belt. The Dawn spacecraft studied it closely back in 2011.



Vesta should be easy to spot this month, passing near Zeta Tauri and the famous supernova remnant M1. Credit: Astronomy: Roen Kelly

Source: astronomy.com





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February Dark Sky Party Amberwood Ct, February 10

Ps 19:2

1 - M36 (Pinwheel Cluster)



4100 light years from Earth (binoculars, small scopes)
only 25 million years old

8 pm

3 - M38 (Starfish Cluster)



visible with binoculars, small scopes
4200 light years from Earth
220 million years old

2 - M37

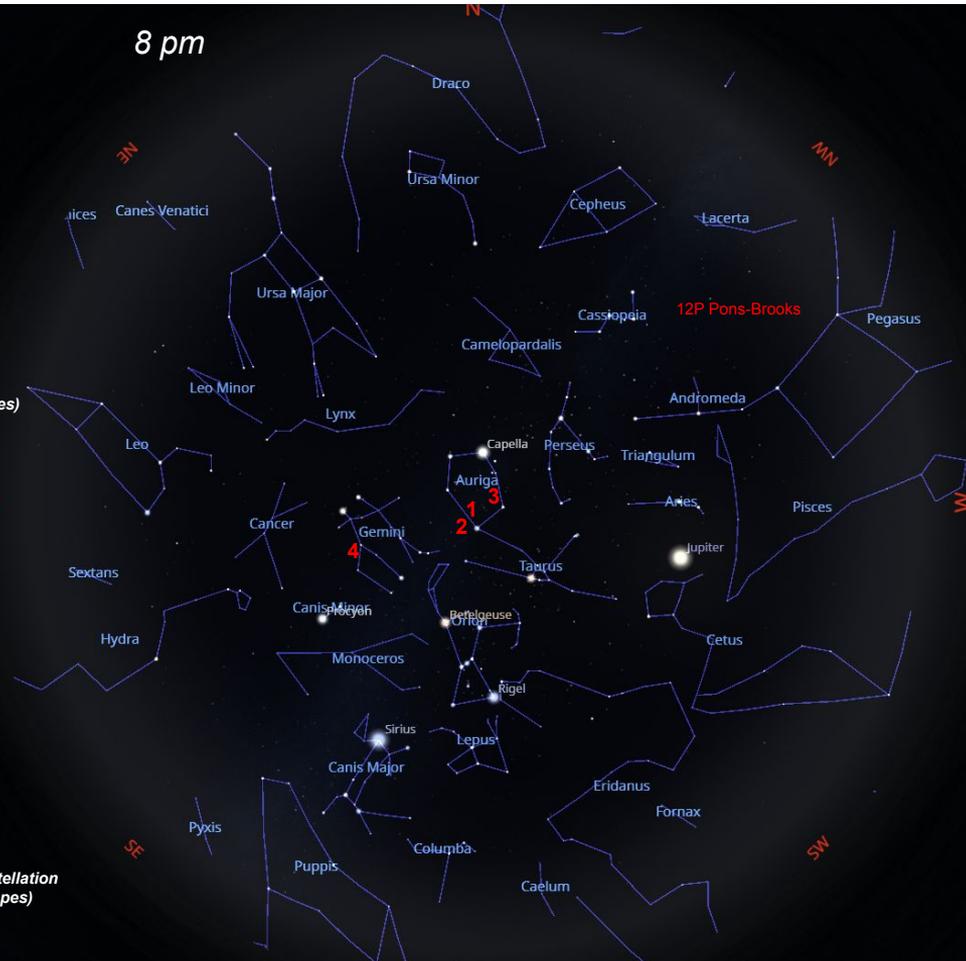


brightest, largest & richest cluster in Auriga constellation
4500 light years from Earth (binoculars, small scopes)
350 - 550 million years old

4 - Eskimo Nebula



visible with small scopes
2870 light years from Earth
10,000 years old - planetary nebula





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February Public Viewing

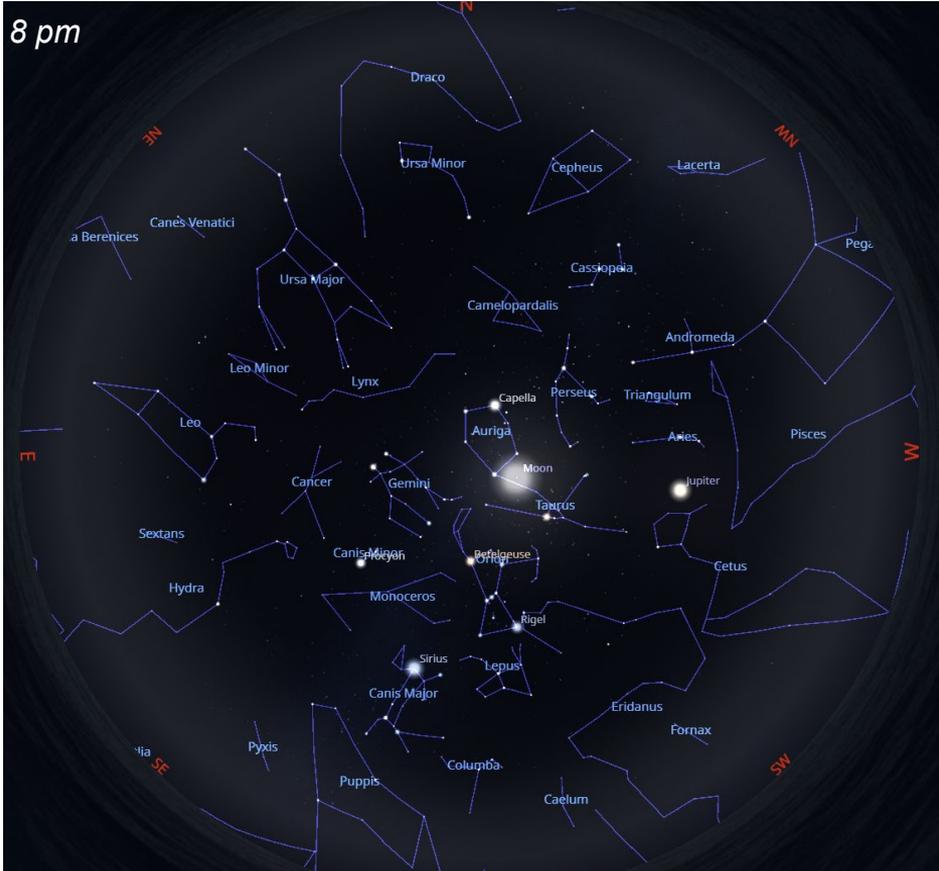
Cub Lake, February 17

Sun sets ~5:30 pm

First Quarter Moon

Ps 19:2

8 pm



February Viewing Chronology

- 2nd - Last quarter Moon
- 7th - Venus, Mars, Mercury, Moon (6:15 am)
- 9th - New Moon
- 10th - Dark Sky Star Party; Saturn/Moon (6:15 pm)
- 11th - Neptune, Moon (7 pm)
- 14th - Jupiter, Uranus, Moon (8 pm)
- 15th - First quarter Moon
- 17th - Public Viewing
- 20th - Moon, Schiller Crater (8 pm)
- 22nd - Venus, Mars (5:30 am)
- 24th - Full Moon
- All month - comets, Vesta