



September 2025 Astronomy Report



- **Moon:**
 - Phases
 - Maginus sunrise ray
- **Planets:**
 - Evening: Mars (*very low in west*), Uranus, Saturn and Neptune (*both in opposition*)
 - Morning: Venus, Jupiter, Saturn, Uranus, and Neptune
- **Comets/Asteroids/Meteor Showers:**
 - Comet C/2025 A6 (Lemmon)
 - Vesta asteroid
- **Dark Sky Star Party:**
 - Cedar Flats Campground, September 18-21
- **Public Viewing:**
 - Cub Lake, September 27

Moon - Phases

September 7 - Full Moon (Aquarius)



Apogee (252K miles) - 26th
Perigee (227K miles) - 10th

September 14 - Last Quarter (Taurus)



September 21 - New Moon

September 29 - First Quarter (Sagittarius)

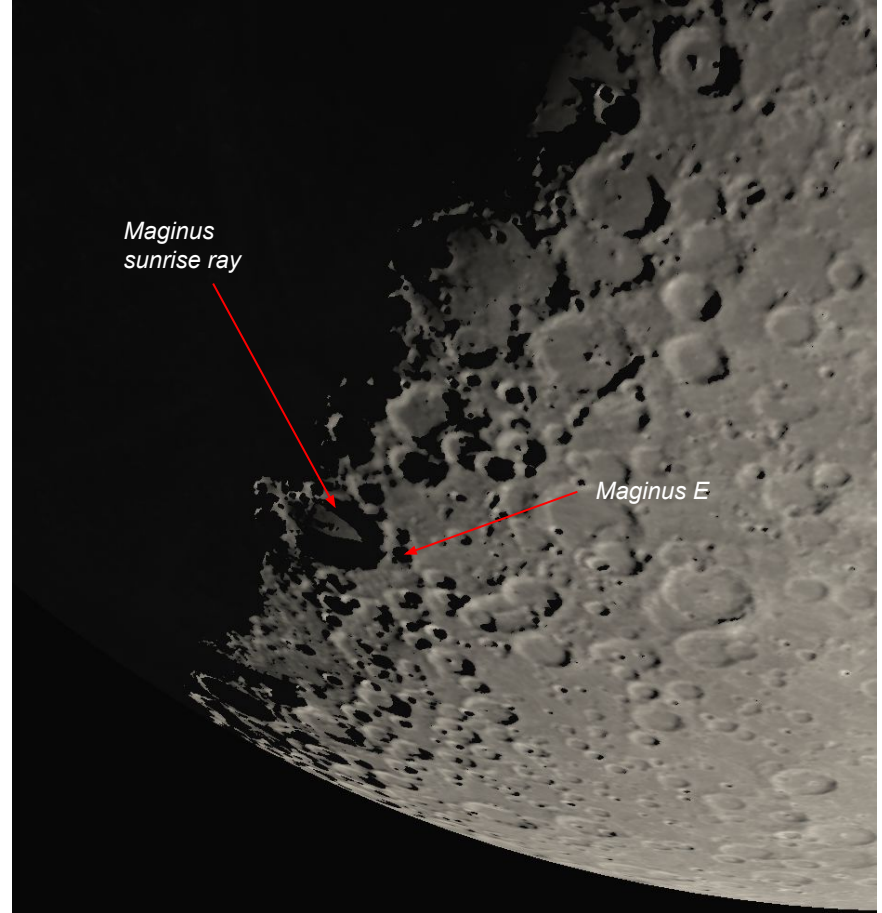


Moon - Maginus sunrise ray

September 29 - First Quarter Moon



Maginus named after Giovanni Antonio Magini - 16th century Italian mathematician and astronomer. In 1588 he was chosen over Galileo to be the Chair of Mathematics at the University of Bologna. He supported a geocentric view of the solar system.





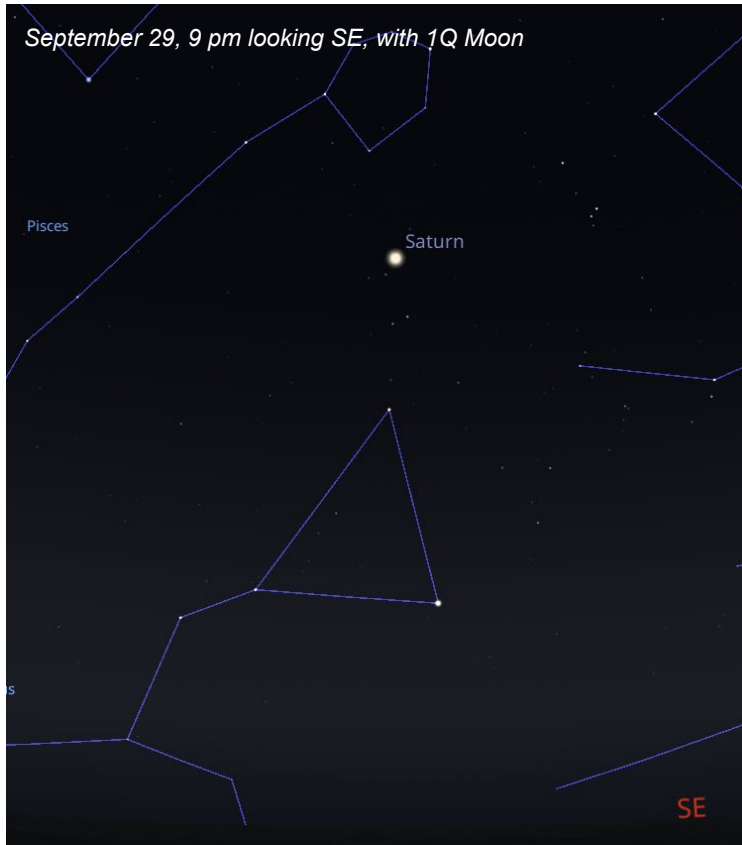
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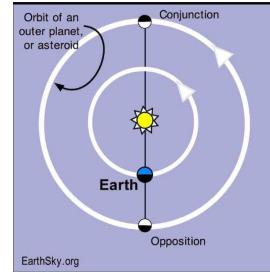
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Evening / Morning Planets: Saturn/Neptune - (Pisces)

Saturn & Neptune remain close together throughout September. Saturn reaches opposition on Sept. 21, closest it gets to Earth (795 million miles). Neptune reaches opposition on the 23rd.



A half-dozen 5th-and-6th magnitude stars in the vicinity, making a great view in binoculars



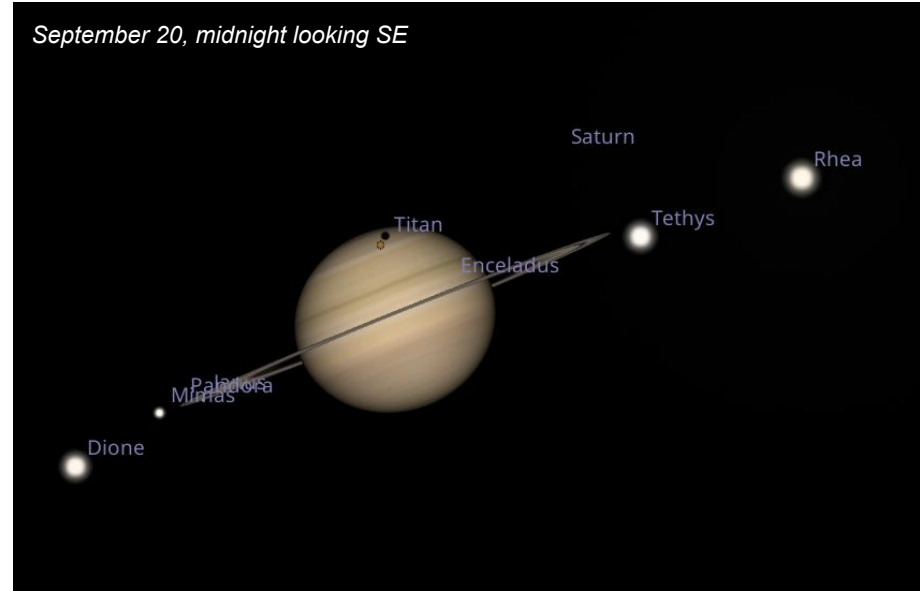
Evening / Morning Planets: Saturn - (Pisces)

Titan's shadow transits across Saturn twice in August. Titan is occulted (eclipsed) by Saturn late on the night of September 11/12th and on September 27th before midnight. Titan orbits Saturn every 16 days.

September 4, 1 am looking SE



September 20, midnight looking SE



Saturn's low tilt angle of its rings allows for good views of both hemispheres and plenty of moon transits.

Morning Planets: Venus - (Cancer/Leo)

Venus, the crescent Moon, and Regulus line up on September 19 for a stunning morning spectacle (however only 10-15 deg altitude). Venus starts the month in Cancer and ends up in Leo, towards the horizon by the end of the month.



Morning Planets: Jupiter - (Gemini)

Jupiter rises by 2 am in early September.

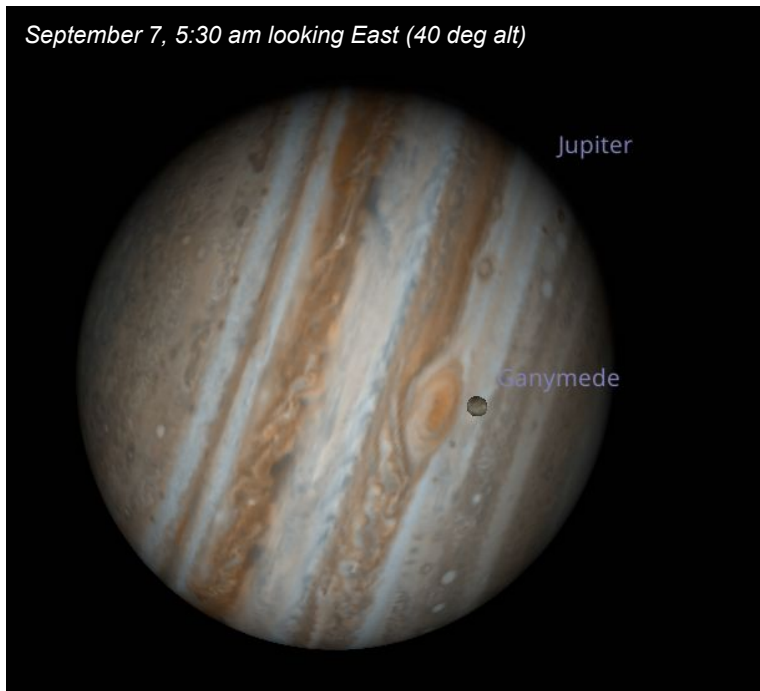
September 18, 5 am looking East



Morning Planets: Jupiter - (*Gemini*)

Jupiter moon transits

September 7, 5:30 am looking East (40 deg alt)



September 27, 1:15 am looking NE (only 3 deg alt)



Morning Planets: Uranus - (Taurus)

Uranus rises around midnight at beginning of September and shortly after 9:30 pm by the end.

September 20, 5:30 am looking SW, new Moon



Uranus stands about 4 degrees SE of the Pleiades (M45)





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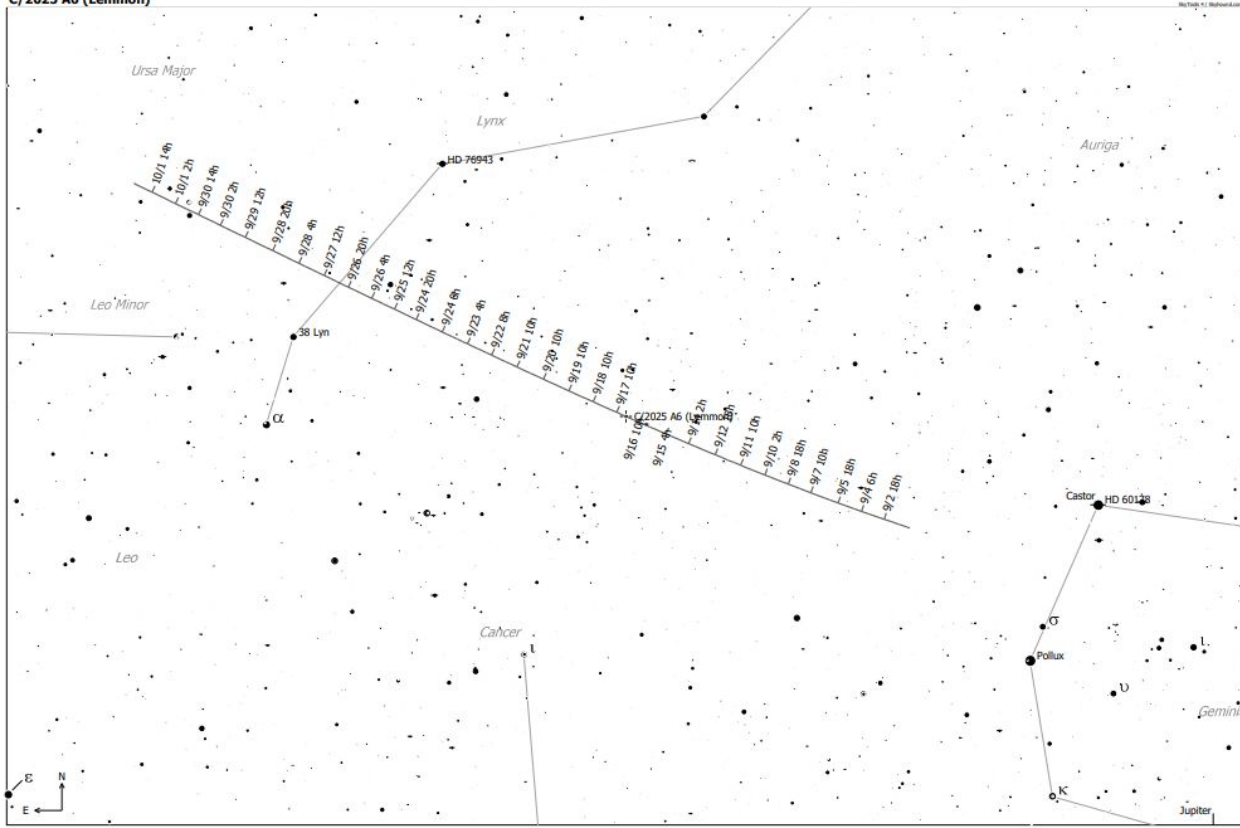


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Comet - C/2025 A6 (Lemmon)

- Morning comet visible in binoculars
- Starts September in Gemini at magnitude 10.5, should brighten rapidly moving into Lynx by month's end

C/2025 A6 (Lemmon)



4 am looking NE

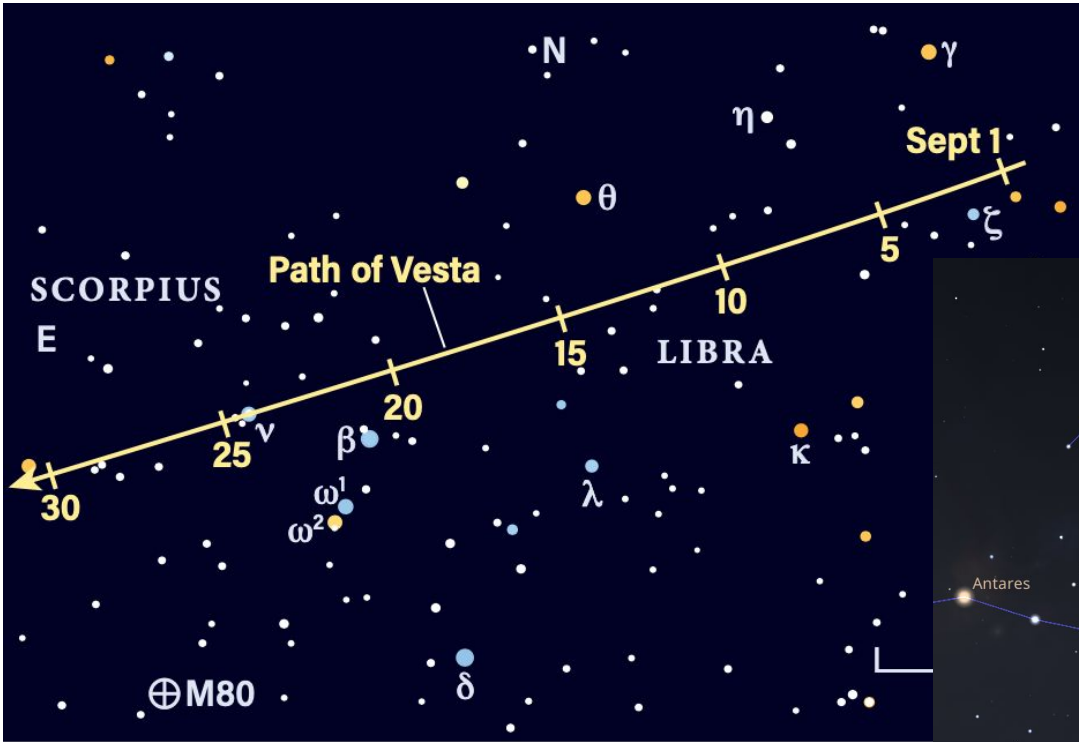


"Comets are like cats. They both have tails and do what they want, and not always what we expect."

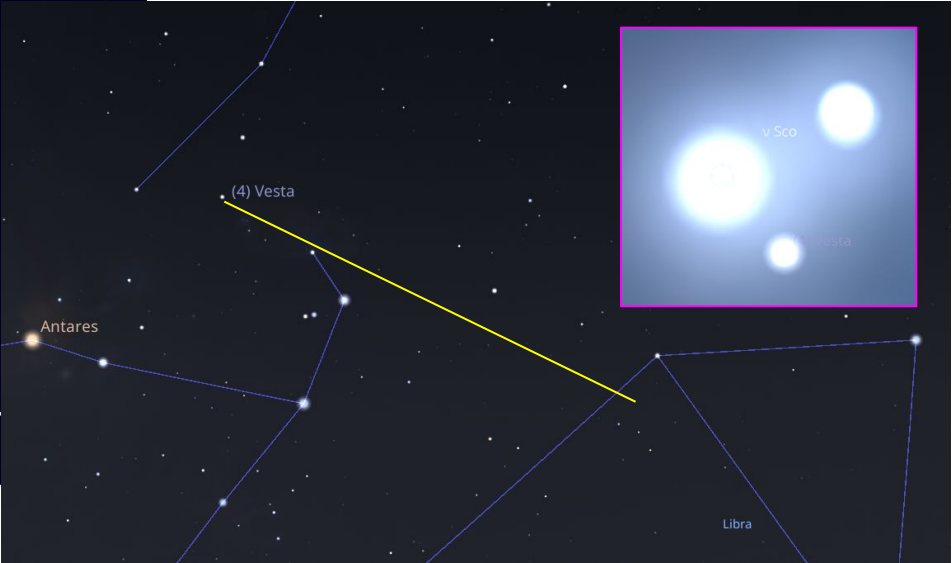
Credit: cometchasing.skyhound.com

Asteroid - Vesta (Libra/Scorpius)

Visible with small telescope, low in SW sky



Highlight of the month takes place on the 24th, when Vesta becomes the 5th component of Nu Scorpii. In 1905, Agnes Clerke called this star “perhaps the most beautiful quadruple system in the heavens”.



Vesta enters Scorpius this month, making a stunning near pass of Nu Scorpii. Credit: Astronomy: Roen Kelly



August 2025 Astronomy Report

“A Month of Close Meetings”



- ***Moon:***
 - Phases

- ***Planets:***
 - Evening: Mars (*low in west*), Saturn and Neptune (*low in east*)
 - Morning: Mercury, Venus, Jupiter, Saturn, Uranus, and Neptune

- ***Comets/Asteroids/Meteor Showers:***
 - Perseid meteor shower
 - Comet C/2025 K1 (ATLAS)
 - Vesta asteroid

- ***Dark Sky Star Party:***
 - Cedar Flats Campground, September 20

- ***Public Viewing:***
 - Cub Lake, September 27

Dark Sky Viewing

Cedar Flats Campground, September 20

Ps 19:2

1 - NGC 6974 (Veil Nebula)



Supernova remnant in Cygnus
2400 light years from Earth
small telescopes

2 - NGC 6826 (Blinking Planetary Nebula)



Planetary nebula in Cygnus
2000 light years from Earth
small telescopes

3 - NGC 7000 (North American Nebula)

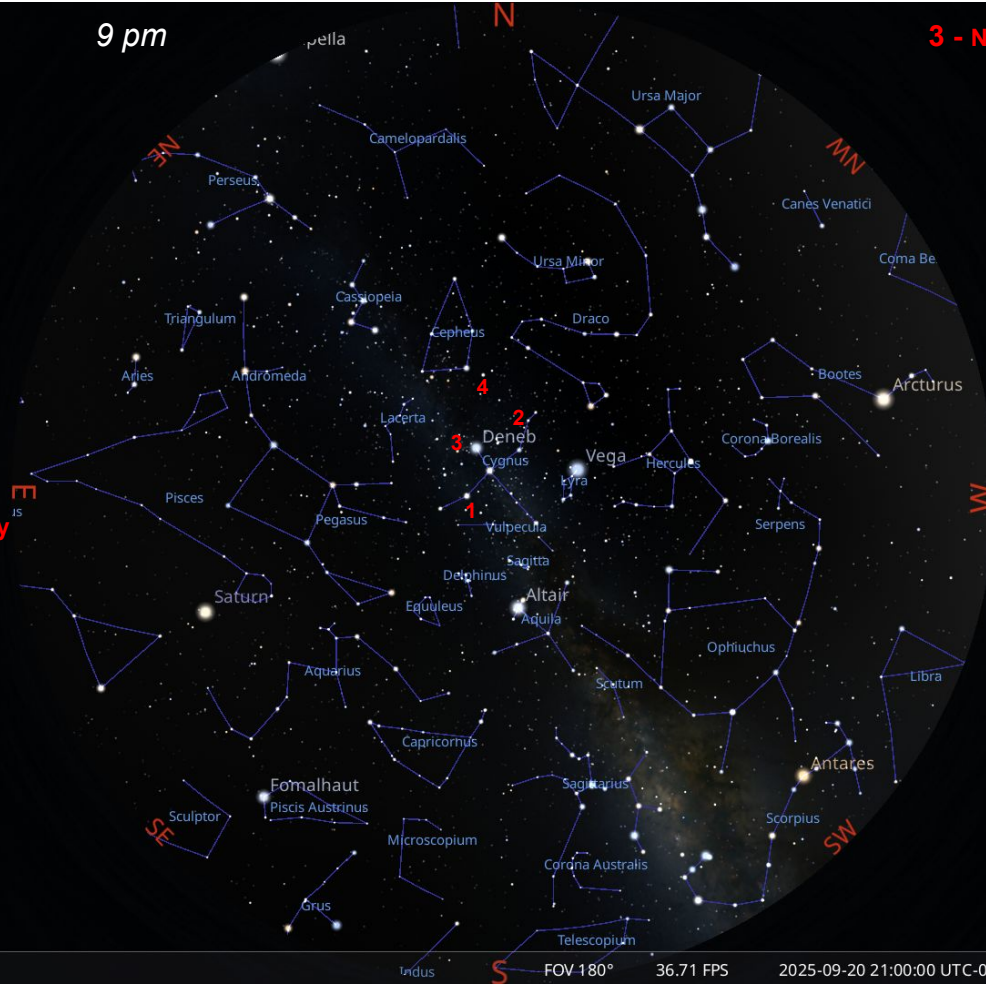


Emission nebula in Cygnus
2600 light years from Earth
small telescopes

4 - NGC 6946 (Fireworks Galaxy)



Bright face-on spiral galaxy in Cygnus
25 MM light years from Earth
small telescopes



Public Viewing

Cub Lake, September 27



Moon sets around 10 pm



September 2025 Viewing Chronology

- 4 - Saturn/Titan transit (*1 am*)
- 7 - Jupiter moon transits (*5:30 am*); Full moon (*9 pm*)
- 14 - Last Qtr moon (*5 am*)
- 18 - Jupiter/Venus/crescent moon (*5 am*)
- 19 - Venus/Regulus/crescent moon (*5:30 am*)
- 20 - Uranus (*5:30 am*); Cedar Flats dark sky (*9 pm*); Saturn/Titan transit (*12 pm*)
- 21 - New moon
- 27 - Jupiter moon transits (*1:15 am*); Cub Lake Public Viewing (*9 pm*)
- 29 - Maginus sunrise ray, 1st Qtr moon (*9 pm*)

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