

# What's Up, Doc? †

## September 2025

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This document tells you what objects are visible this next month for many of the Astronomical League Clubs. If you are working on an advanced club, then I assume that you are tracking where your objects are all the time. I have concentrated on the common and starter level clubs. This information is based on 9 PM **Mountain** Daylight Time for **Boise, Idaho**.

### Naked-Eye Clubs

**Meteors** – any night, any time, anywhere, the darker the sky the better.

<u>Shower</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
Lyrids	4/14 to 4/30	4/23 0100 UTC	CLASS 1
Eta Aquarids	4/15 to 5/27	5/6	CLASS 1
Pi Puppids	4/16 to 4/30	4/24 0600 UTC	Class 3
Delta Pavonids	3/11 to 4/16	3/31	Class 4
April Epsilon Delphinids	3/31 to 4/20	4/9	Class 4
Alpha Virginids	4/6 to 5/1	4/18	Class 4
Kappa Serpentids	4/11 to 4/22	4/16	Class 4
h-Virginids	4/24 to 5/4	5/1	Class 4

Key to Meteor Classes:

- Class 1 – Major Meteor Showers
- Class 2 – Minor Meteor Showers
- Class 3 – Variable Meteor Showers
- Class 4 – Weak Meteor Showers

**Constellations, Northern Skies** – any night, any time, anywhere, the darker the sky the better.

Last Chance this cycle: Cassiopeia, Andromeda, Triangulum, Aries, Caelum.

Transit Ursa Major, Lynx, Leo Minor, Cancer, Leo, Hydra, Sextans, Pyxis, Antlia, Vela.

New arrivals: Bootes, Virgo, Corvus.

### Binocular Clubs

**Binocular Messier** – Monthly highlights include:

Easy – 3, 34, 35, 36, 37, 38, 41, 42, 44, 45, 46, 47, 48, 50, 67, 93, 103.

Medium – 40, 49, 53, 63, 64, 78, 79, 81, 82, 94.

Hard – 1, 51, 65, 66, 68, 97, 101, 104, 106.

Big Binoculars – 58, 59, 60, 61, 84, 85, 86, 87, 88, 89, 90, 95, 96, 99, 100, 102, 105, 108, 109.

**Deep Sky Binocular** – Monthly highlights include (by Astronomical League numbers):

3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42.

### Other Clubs

#### Messier

In addition to those listed under Binocular Messier, check out: 43, 76, 91, 98.

#### Caldwell

1, 2, 3, 5, 6, 7, 8, 10, 13, 14, 21, 23, 24, 25, 26, 29, 31, 32, 35, 36, 38, 39, 40, 41, 45, 46, 48, 49, 50, 51, 52, 53, 54, 58, 59, 60, 61, 64, 71, 74, 79.

**Double Star** (by Astronomical League numbers):

5, 8, 11, 14, 16, 17, 18, 20, 23, 25, 27, 28, 29, 32, 34, 35, 39, 40, 42, 43, 45, 51, 52, 53, 54, 55, 56, 57, 59, 61, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 82, 83, 85, 92, 95, 98, 99, 100.

## Other Clubs (of the Solar System)

**Planetary** – These are the tasks that can be done this month:

Sun – Any clear day is a good time to get those sunspots. The Sun is in Leo.

Sunset mid-month is at 1954.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 9/14 and after 9/28 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 9/27 and 9/28.

The Scarps requirement is best done on 9/29.

Occultations occur all the time, the bright ones can be found on the internet. Objects disappear on the East side of the moon.

Mercury, Venus, and Jupiter are not available in the evening sky mid-month.

Asteroids – Course Plotting and Measuring Movement requirements can be done at any time on any asteroid.

Mars is in Virgo and sets at 2100 mid-month.

Ceres is in Cetus and rises at 2153 mid-month.

Saturn is in Pisces and rises at 2013 mid-month.

Uranus is in Taurus and rises at 2237 mid-month.

Neptune is in Pisces and rises at 2012 mid-month.

Pluto is in Capricornus and is up all evening mid-month.

## Lunar

Key timings are indicated below:

New, 9/21                      4 days, 9/25                      7 days, 9/28                      10 days, 9/2                      14 days, 9/6

Old moon in new moon's arms – before 1354 on 9/24, ~10 % illuminated. (72 hr > New)

New moon in old moon's arms – after 1354 on 9/18, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 1354 on 9/23, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 1354 on 9/19, ~4 % illuminated. (48 hr < New)

## Major Events in June:

- 9/1 – Aurigid Meteor Shower
- 9/5 – Uranus begins retrograde motion
- 9/7 – Total Lunar Eclipse
- 9/9 – Sept.  $\epsilon$  Perseid Meteor Shower
- 9/10 – Lunar Perigee
- 9/13 – Mercury at Superior Conjunction
- 9/19 – Moon/Venus Conjunction (48')
- 9/20 – Saturn at Opposition
- 9/21 – Partial Solar Eclipse
- 9/22 – Autumnal Equinox
- 9/23 – Neptune at Opposition
- 9/26 – Lunar Apogee
- 9/27 – Daytime Sextanid Meteor Shower

Although these Observing Programs are detailed in the “**What’s Up Doc?**” handout, you can get information on many of their objects of the other AL Observing Programs by using the “**What’s Up Tonight, Doc?**” spreadsheet. To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to [aaron@clevenson.org](mailto:aaron@clevenson.org).

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