

What's Up, Doc? †

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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 one of the more 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. All times are US Pacific Time for Seattle, WA.

Naked-Eye Clubs

Meteors

<u>Showers</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
Gamma Aquarids	9/1 to 9/14	9/7 & 9/8	Minor
Alpha Triangulids	9/5 to 9/15	9/11 & 9/12	Minor
Alpha Aurigids	8/25 to 9/6	9/1 & 9/2	Minor
Eta Draconids	8/28 to 9/23	9/12 & 9/13	Minor
Gamma Piscids	8/26 to 10/22	9/23 & 9/24	Minor
Southern Piscids	8/12 to 10/7	9/11 to 9/20	Minor

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

Last Chance this cycle: Draco, Canes Venatici, Bootes, Serpens, Libra, Scorpius, Telescopium.

Transit: Cygnus, Lyra, Sagitta, Vulpecula, Delphinus, Aquila, Scutum, Sagittarius.

New arrivals: Andromeda, Pisces, Pegasus, Aquarius, Microscopium, Piscis Austrinus.

Binocular Clubs

Binocular Messier – Monthly highlights include:

Easy – 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 27, 29, 31, 39, 52, 55, 92, 103.

Medium – 14, 19, 28, 30, 33, 40, 62, 63, 80, 81, 82, 94.

Hard – 9, 26, 32, 51, 54, 56, 71, 75, 101, 106.

Big Binoculars – 69, 70, 72, 102, 107, 109, 110.

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

1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60.

Other Clubs

Messier

In addition to those listed under Binocular Messier, check out: 21, 57, 73, 76, 108.

Caldwell

1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 33, 34, 37, 42, 43, 44, 47, 55, 57, 63, 68, 69, 76, 78.

Double Star (by Astronomical League numbers):

1, 4, 7, 9, 10, 12, 13, 14, 15, 18, 21, 22, 26, 29, 31, 35, 36, 37, 38, 39, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 54, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 84, 86, 87, 88, 89, 90, 91, 93, 94, 96, 97.

Other Clubs (of the Solar System)

Solar System – 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 1920.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 9/24 and after 9/9 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 9/8 and 9/9.

The Scarps requirement is best done on 9/10.

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

Mercury, Mars, 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.

Venus is in Leo and sets at 2053 mid-month.

Ceres is in Sagittarius and is up all evening mid-month.

Saturn is in Aquarius and is rises at 2048 mid-month.

Uranus is in taurus and rises at 2310 mid-month.

Neptune is in Pisces and rises at 2107 mid-month.

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

Lunar (times are shown for Central US Time)

Key timings are indicated below:

New, 9/2 4 days, 9/6 7 days, 9/9 10 days, 9/12 14 days, 9/16

Old moon in new moon's arms – before 1855 on 9/5, ~10 % illuminated. (72 hr > New)

New moon in old moon's arms – after 1949 on 9/28, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 1855 on 9/4, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 1949 on 9/29, ~4 % illuminated. (48 hr < New)

Major Astronomical Events:

- 9/4 – Mercury at Greatest Elongation – East
- 9/4 – Moon as Ascending Node
- 9/5 – Moon at Apogee
- 9/7 – Saturn at Opposition
- 9/9 – Mercury at Perihelion
- 9/12 – Lunar Apogee
- 9/17 – Saturn – Moon Conjunction (0.3')
- 9/17 – Partial Lunar Eclipse
- 9/18 – Moon at Perigee
- 9/18 – Moon at Ascending Node
- 9/20 – Neptune at Opposition
- 9/22 – Autumnal Equinox
- 9/30 – Mercury at Superior Conjunction

* - Although these clubs are not detailed in this “What’s Up Doc?” handout, you can get information on many of their objects by using the “What’s Up Tonight, Doc?” spreadsheet (version 4.1). To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to aaron@clevenson.org. It is also available on the club website.

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