

What's Up, Doc? †

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Dr. Aaron B. Clevenson, Observatory Director, Insuperity Observatory

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 **Eastern** Time in Washington DC.

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.

Sunset mid-month is at 1917.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 9/6 and after 9/20 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 9/19 and 9/20.

The Scarps requirement is best done on 9/21.

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

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

Venus is not visible in the evening sky this month.

Mercury is in Leo and sets at 2012 mid-month.

Mars is in Virgo and sets at 2052 mid-month.

Ceres is in Virgo and sets at 2209 mid-month.

Jupiter is in Aries and rises at 2253 mid-month.

Saturn is in Aquarius and is up all evening at mid-month.

Uranus is in Aries and rises at 2312 mid-month.

Neptune is in Pisces and rises at 2050 mid-month.

Pluto is in Sagittarius and is up all evening at mid-month.

Lunar (times are shown for Eastern US Time)

Key timings are indicated below:

New, 9/13 4 days, 9/17 7 days, 9/20 10 days, 9/23 14 days, 9/27

Old moon in new moons arms – before 2140 on 9/16, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 2140 on 9/10, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 2140 on 9/15, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 2140 on 9/11, ~4 % illuminated. (48 hr < New)

Major Astronomical Events:

- 9/1 – Aurigids Meteors
- 9/2 – Venus is Stationary
- 9/4 – Jupiter is Stationary
- 9/6 – Mercury at Inferior Conjunction
- 9/9 – Sept. Epsilon Perseid Meteors
- 9/12 – Lunar Apogee
- 9/14 – Mercury is Stationary
- 9/16 – Moon and Mars Conjunction
- 9/19 – Neptune at Opposition
- 9/22 – Mercury at Greatest Western Elongation
- 9/22 – Mercury at Dichotomy
- 9/23 – September Equinox
- 9/27 – Daytime Sextanids Meteors

* - 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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Inspireity Observatory, 2505 S. Houston Avenue, Humble, TX: www.humbleisd.net/observatory