

# What's Up, Doc? †

## October 2023

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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 clubs, 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 Central Daylight Time.

### Naked-Eye Clubs

#### Meteors

<u>Shower</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
<b>Orionids</b>	<b>10/15 to 10/29</b>	<b>10/21</b>	<b>Major</b>
Arietids	9/7 to 10/27	10/8 & 10/9	Minor
Delta Aurigids	9/22 to 10/23	10/6 to 10/15	Minor
Eta Cetids	9/20 to 11/2	10/1 to 10/5	Minor
October Cetids	9/8 to 10/30	10/5 & 10/6	Minor
October Cygnids	9/22 to 10/11	10/4 to 10/9	Minor
Draconids	10/6 to 10/10	10/7	Minor
Epsilon Geminids	10/10 to 10/27	10/18 & 10/19	Minor
Northern Piscids	10/5 to 10/16	10/12 & 10/13	Minor
Sextantids	9/24 to 10/9	9/30 to 10/4	<b>DAYTIME</b>

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

Last Chance this cycle: Serpens, Ophiuchus, Sagittarius, Corona Australis.

Transit: Cepheus, Lacerta, Cygnus, .Vulpecula, Pegasus, Delphinus, Equuleus, Aquarius, Capricorn, Piscis Austrinus, Microscopium

New arrivals: Perseus, Aries, Triangulum, Cetus, Sculptor, Grus.

### Binocular Clubs

**Binocular Messier** – Monthly highlights include:

Easy – 2, 8, 10, 11, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 27, 29, 31, 34, 39, 52, 55, 92, 103.

Medium – 14, 28, 30, 33.

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

Big Binoculars –69, 70, 72, 102, 110.

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

1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 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, 74, 76.

#### Caldwell

6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 27, 28, 30, 33, 34, 37, 42, 43, 44, 47, 51, 55, 56, 57, 62, 63, 65, 68.

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

1, 2, 4, 6, 7, 10, 12, 13, 15, 19, 21, 24, 26, 30, 31, 33, 35, 36, 37, 38, 39, 41, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 84, 88, 89, 90, 96.

## 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 is at 1851.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 10/7 and after 10/21 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 10/20, 10/21.

The Scarps requirement is best done on 10/22.

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.

Mercury and Venus are not visible in the evening sky.

Mars is in Virgo and sets at 1917 mid-month.

Ceres is in Virgo and sets at 2047 mid-month.

Jupiter is in Aries and rises at 1953 mid-month.

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

Uranus is in Aries and rises at 2020 mid-month.

Neptune is in Pisces and is up all evening mid-month.

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

### Lunar

Key timings are indicated below:

New, 10/14      4 days, 10/18      7 days, 10/21      10 days, 10/24      14 days, 10/28

Old moon in new moons arms – before 0055 on 10/17, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 0055 on 10/11, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 0055 on 10/16, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 0055 on 10/12, ~4 % illuminated. (48 hr < New)

### Special Events this month (also see the moon and meteor shower information):

- 10/2 – Makemake at conjunction
- 10/6 – October Camelopardalids Meteor Shower
- 10/7 – Draconids Meteor Shower
- 10/10 – Lunar apogee
- 10/11 – Delta Aurigids Meteor Shower
- 10/14 – Annular Solar Eclipse in the US
- 10/18 – Epsilon Geminids Meteor Shower
- 10/19 Mercury at superior conjunction
- 10/22 Orionids Meteor Shower
- 10/22 – Venus at dichotomy
- 10/23 – Venus at greatest western elongation
- 10/24 – Leonis Minorids Meteor Shower
- 10/25 – Lunar perigee
- 10/28 – Partial Lunar Eclipse

\* - 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](mailto:aaron@clevenson.org).

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