

# What's Up, Doc? †

## June 2023

Dr. Aaron B. Clevenson, Director, Insperity Observatory in Humble ISD

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 **ET** for **Washington DC (EDT)**.

### 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>
<b>June Lyrids</b>	<b>6/10 to 6/21</b>	<b>6/15 &amp; 6/16</b>	<b>Moderate</b>
June Aquilids	6/2 to 7/2	6/16 & 6/17	minor
June Bootids	6/22 to 7/2	6/27	minor
Corvids	6/25 to 7/3	6/27 & 6/28	minor
Tau Herculids	5/19 to 6/19	6/9 & 6/10	minor
Ophiuchids	5/19 to 7/2	6/20 & 6/21	minor
Theta Ophiuchids	5/21 to 6/16	6/10 & 6/11	minor
Sagittarids	6/10 to 6/16	6/10 & 6/11	minor
Phi Sagittarids	6/1 to 7/15	6/18 & 6/19	minor
Chi Scorpiids	5/6 to 7/2	5/28 & 6/5	minor
Omega Scorpiids	5/19 to 7/11	6/3 to 6/6	minor
June Scutids	6/2 to 7/29	6/27 & 6/28	minor
Arietids	4/14 to 6/24	6/7	DAYLIGHT
Zeta Perseids	5/20 to 7/5	6/13 & 6/24	DAYLIGHT
Veta Taurids	6/5 to 7/18	6/29 & 6/30	DAYLIGHT

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

Last Chance this cycle: Lynx, Canis Minor, Cancer, Hydra, Antlia.

Transit Ursa Major, Canes Venatici, Coma Berenices, Virgo, Corvus.

New arrivals: Draco, Lyra, Hercules, Ophiuchus, Serpens, :upus.

### Binocular Clubs

**Binocular Messier** – Monthly highlights include:

Easy – 3, 4, 5, 10, 12, 13, 44, 67, 92.

Medium – 15, 19, 40, 49, 53, 63, 64, 80, 81, 82, 83, 94.

Hard – 9, 51, 56, 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, 107, 108, 109.

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

5, 34, 38, 42, 43, 45, 46, 47, 50, 56.

### Other Clubs

#### Messier

In addition to those listed under Binocular Messier, check out: 57, 91, 98.

#### Caldwell

1, 2, 3, 4, 5, 6, 7, 12, 15, 21, 25, 26, 29, 32, 35, 36, 38, 39, 40, 45, 48, 52, 53, 59, 60, 61, 66, 77, 80, 83.

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

1, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 22, 23, 25, 26, 29, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 48, 50, 51, 52, 54, 56, 57, 58, 59, 65, 66, 67, 68, 69, 70, 71, 74, 86, 87, 91, 92, 93, 94, 96, 100.

## Other Clubs (of the Solar System)

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

Mercury, Jupiter, Saturn, Uranus, Neptune and Pluto are morning “stars” this month.

Sun – Any clear day is a good time to get those sunspots, if there are any to be seen.

Sunset **2035** mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 6/10 or after 6/24 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 6/23, or 6/24.

The Scarps requirement is best done on 6/25.

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. See above to identify the bright ones this month.

Venus is in Gemini and sets at **2328** mid-month.

Mars is in Cancer and sets at **2343** mid-month.

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

## Lunar

Key timings are indicated below:

New, 6/17      4 days, 6/21      7 days, 6/24      10 days, 6/27      14 days, 6/2

Old moon in new moon’s arms – before **1937** on 6/20, ~10 % illuminated. (72 hr > New)

New moon in old moon’s arms – after **1937** on 6/14, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before **1937** on 6/19, ~4 % illuminated. (40 hr > New)

Waning Crescent – after **1937** on 6/15, ~4 % illuminated. (48 hr < New)

## Major Astronomical Events:

- 6/3 – Venus at Dichotomy
- 6/4 – Venus at Greatest Eastern Elongation
- 6/4 – Mercury at Dichotomy
- 6/6 – Lunar Perigee
- 6/7 – Daytime Arietids Meteor Shower
- 6/18 – Saturn stationary
- 6/19 – Neptune at Western Quadrature
- 6/21 – June Solstice
- 6/22 – Lunar Apogee
- 6/27 – June Boötids Meteor Shower
- 6/30 – 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](mailto:aaron@clevenson.org). It is also available on the club website.

† - “What’s Up Doc?” is used with permission from Warner Bros. Entertainment Inc.

Observing Programs with the astronomical League: <https://www.astroleague.org/al/obsclubs/AlphabeticObservingClubs.html>

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**Insperty Observatory, 2505 S. Houston Avenue, Humble, TX: [www.humbleisd.net/observatory](http://www.humbleisd.net/observatory)**