

# What's Up, Doc? †

## August 2022 (Pacific Daylight Time)

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This document presents those objects are visible this next month for many Astronomical League Observing Programs. If you are working on a more advanced program, I assume you are tracking where your objects are all the time. It concentrates on the common and starter level programs. This is based on 9 PM Pacific Daylight Time at about 47° North Latitude (Seattle, WA).

### 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>Southern Delta Aquarids</b>	<b>7/21 to 8/23</b>	<b>7/30 after midnight</b>	<b>MAJOR (ZHR: 16)</b>
<b>Perseids</b>	<b>7/13 to 8/26</b>	<b>8/13 @ midnight to 3 AM</b>	<b>MAJOR (ZHR: 100)</b>
<b>Orionids</b>	<b>8/25 to 11/19</b>	<b>10/22 after midnight</b>	<b>MAJOR (ZHR: 15)</b>
Alpha Capricornids	7/8 to 8/10	8/1 & 8/2	Moderate (ZHR: 5)
Aurigids	8/29 to 9/4	9/1	Moderate (ZHR: 6)
Kappa Cygnids	8/6 to 8/31	8/17	minor (ZHR: 3)
July Pegasids	6/30 to 8/3	7/10	weak (ZHR: < 2)
Eta Eridanids	7/31 to 8/17	8/5	weak (ZHR: < 2)
Beta Perseids	7/24 to 8/20	8/7	weak (ZHR: < 2)
Northern Delta Aquarids	8/8 to 9/1	8/20	weak (ZHR: < 2)
August Gamma Cepheids	8/22 to 9/1	8/28	weak (ZHR: < 2)

**Constellation Hunter, Northern Skies (and some Southern Skies)** – any night, any time, anywhere, the darker the sky the better.

Last Chance this cycle: Ursa Major, Leo Minor, Coma Berenices, Virgo.

Transit: Ursa Minor, Draco, Hercules, Corona Borealis, Serpens, Ophiuchus, Scorpius.

New arrivals: Lacerta, Cygnus, Pegasus, Capricornus, Sagittarius.

### 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, 39, 52, 55, 92, 103.

Medium – 14, 19, 28, 40, 49, 53, 62, 63, 64, 80, 81, 82, 83, 94.

Hard – 9, 26, 51, 54, 56, 71, 75, 97, 101, 104, 106.

Big Binoculars – 58, 59, 60, 61, 69, 70, 72, 84, 85, 86, 87, 88, 89, 90, 99, 100, 102, 107, 108, 109.

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

1, 3, 4, 5, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60.

The Astronomical League now offers a total of 9 Binocular Certifications. They include the Solar System and Lunar.

### Other Clubs

#### Messier

In addition to those listed under Binocular Messier, check out: 21, 57, 73, 91, 98.

#### Caldwell

1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 29, 30, 32, 33, 34, 35, 36, 37, 38, 42, 45, 47, 52, 55, 57, 66, 68, 69, 75, 76, 78, 81, 82.

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

1, 4, 7, 9, 10, 12, 13, 14, 15, 17, 18, 22, 26, 29, 31, 35, 36, 37, 38, 39, 41, 43, 44, 45, 46, 47, 48, 50, 51, 52, 54, 56, 57, 58, 60, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 74, 84, 86, 87, 88, 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 is 2021 mid-month.

Venus, and Ceres are too close to the Sun or are morning objects.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 8/20, and after 8/4 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 8/3 or 8/4.

The Scarps requirement is best done on 8/5.

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

Mercury is in Leo and sets at 2051 at mid-month.

Mars is in Taurus and rises at 2349 mid-month.

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

Jupiter is in Cetus and rises at 2155 mid-month.

Saturn is in Capricornus and is up all evening mid-month. All requirements can be done when Saturn is visible: markings, moons, etc.

Uranus is in Aries and rises at 2317 mid-month

Neptune is in Aquarius and rises at 2127 mid-month.

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

## Lunar

Key timings are indicated below:

New, 8/27                      4 days, 8/1 & 8/31                      7 days, 8/4                      10 days, 8/7                      14 days, 8/11

Old moon in new moons arms – before 0117 on 8/30, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 0117 on 8/24, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 0117 on 8/29, ~4 % illuminated. (48 hr > New)

Waning Crescent – after 0117 on 8/25, ~4 % illuminated. (48 hr < New)

## The Astronomical League Observing Programs:

([www.astroleague.org/al/obsclubs/AlphabeticObservingClubs.html](http://www.astroleague.org/al/obsclubs/AlphabeticObservingClubs.html))

Analemma	ARP Peculiar Galaxies	Asterisms	Asteroids
Binocular Double Star	Binocular Messier	Caldwell	Carbon Star
Comets	Constellation Hunter – North	Constellation Hunter – South	Dark Nebulae
Dark Sky Advocate	Deep Sky Binocular	Double Star	Earth Orbiting Satellite
Flat Galaxy	Galaxy Groups & Clusters	Galileo	Globular Clusters
Herschel 400	Herschel II	Local Galaxy Group & Neighborhood	Mars
Lunar	Lunar II	Master Observer	Messier
Meteor	NEO	Open Clusters	Outreach
Planetary Nebulae	Planetary Transit	Solar System Observers	Sky Puppy
Southern Skies Binocular	Southern Skies Telescope	Sunspotters	Stellar Evolution
Universe Sampler	Urban	Variable Star	Planetary Transit

\* - 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.

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