

# What's Up, Doc? †

## January 2024

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

This document tells you what objects are visible this next month for many of the Astronomical League Observing Programs. If you are working on one of the more advanced Observing Programs, then I assume that you are also probably tracking where your objects are all the time. This concentrates on the more common and starter level Observing Programs. This information is based on 9 PM **Eastern** Time.

### Naked-Eye Observing Programs

**Meteors** – any night, any time, anywhere; the darker the sky the better. Major showers are in **BOLD**:

<u>Shower</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
<b>Quadrantids</b>	<b>1/1 to 1/10</b>	<b>1/3</b>	<b>Major</b>
Zeta Aurigids	12/11 to 1/21	12/31 & 1/1	Minor
January Bootids	1/9 to 1/18	1/16 to 1/18	Minor
Alpha Centaurids	1/28 to 2/21	2/8	Minor
Delta Cancri	12/14 to 2/14	1/17	Minor
Canids	1/13 to 1/30	1/24 & 1/25	Minor
Eta Carinids	1/14 to 1/27	1/21 & 1/22	Minor
Eta Craterids	1/11 to 1/22	1/16 & 1/17	Minor
January Draconids	1/10 to 1/24	1/13 to 1/16	Minor
Rho Geminids	12/28 to 1/28	1/8 & 1/9	Minor
Alpha Hydrids	1/15 to 1/30	1/20 & 1/21	Minor
Alpha Leonids	1/13 to 2/13	1/24 to 1/31	Minor
Gamma Velids	1/1 to 1/17	1/5 to 1/8	Minor

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

Last Chance: Cygnus, Lyra, Vulpecula, Sagitta, Delphinus, Equuleus, Aquarius, Piscis Austrinus.

Transit: Camelopardalis, Perseus, Aries, Taurus, Eridanus, Fornax.

New Arrivals: Lynx, Ursa Major, Leo Minor, Cancer, Canis Minor, Monoceros, Canis Major, Columba.

### Binocular Observing Programs

**Binocular Messier** – Monthly highlights include:

Easy – 31, 34, 35, 36, 37, 38, 39, 41, 42, 44, 45, 46, 47, 48, 50, 52, 67, 103

Medium – 33, 78, 79, 81, 82

Hard – 1, 32, 97

Big Binoculars – 77, 108, 110

**Deep Sky Binocular** – Monthly highlights include:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 55, 56, 57, 58, 59, 60

### Other Observing Programs

**Messier** In addition to those listed under Binocular Messier, check out: 43, 74, 76

#### Caldwell

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 25, 28, 30, 31, 33, 39, 41, 43, 44, 46, 49, 50, 51, 54, 56, 58, 62, 64, 65, 67, 70, 73

#### Double Star

2, 3, 5, 6, 8, 16, 19, 21, 23, 24, 27, 28, 30, 32, 33, 34, 40, 42, 46, 47, 49, 50, 53, 55, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 89, 95, 99

## Solar System and Lunar Observing Programs

**Solar System** – These are the tasks that can be done this month: (all times are **Eastern Time**)

Sun – Any clear day is a good time to get those sunspots.

Sunset is 1710 by mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look after 1/18 and before 1/4 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 1/17 or 1/18.

The Scarps requirement is best done on 1/19.

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

Mercury, Venus, Mars, and Ceres are not visible in the evening skies.

Jupiter is in Aries and is up all evening mid-month.

Saturn is in Aquarius and sets at 2018 mid-month.

Uranus is in Aries and is up all evening mid-month.

Neptune is in Pisces and sets at 2202 mid-month.

Pluto is in Sagittarius and sets at 1718 mid-month.

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.

**Lunar** (all times are Eastern Time)

Key timings are indicated below: (New Moon, 1/11 at 0658)

4 days, 1/15                      7 days, 1/18                      10 days, 1/21                      14 days, 1/25

Old moon in new moons arms – before 0658 on 1/14, 10 % illuminated. (72 hr > New)

New moon in old moons arms – after 0658 on 1/8, 10 % illuminated. (72 hr < New)

Waxing Crescent – before 0658 on 1/13, 4 % illuminated. (40 hr > New)

Waning Crescent – after 0658 on 1/9, 4 % illuminated. (48 hr < New)

## Astronomical Events

- 1/1 – Lunar Apogee
- 1/2 – Earth at Perihelion
- 1/4 – Quadrantids Meteor Shower
- 1/7 – Mercury at Dichotomy
- 1/12 – Mercury at Greatest Western Elongation
- 1/13 – Lunar Perigee
- 1/17 – Moon & Ceres Conjunction (9')
- 1/18 – Gamma Ursae Minoris Meteor Shower
- 1/20 – Pluto at Conjunction
- 1/27 – Mercury & Mars Conjunction (14')
- 1/29 – Lunar Perigee

\* - Although some 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 through the AL website.

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

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