# What's Up, Doc? † February 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 club, 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 clubs. All time are Pacific Time.

## **Naked-Eye Clubs**

**Meteors** – any night, any time, anywhere, the darker the sky the better.

<u>Shower</u>	<b>Duration</b>	<b>Maximum</b>	<b>Type</b>
Aurigids	1/31 to $2/23$	2/5 to $2/10$	Minor
Alpha Centaurids	2/2 to 2/25	2/8 & 2/9	Minor
Beta Centaurids	2/2 to 2/25	2/8 & 2/9	Minor
Delta Leonids	2/5 to 3/19	2/22 & 2/23	Minor
Sigma Leonids	2/9 to 3/13	2/25 & 2/26	Minor
Capricornids-Sagittariids	1/13 to 2/28	1/30 to $2/3$	DAYLIGHT
Chi Capricornids	1/29 to 2/28	2/13 & 2/14	DAYLIGHT

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

Last Chance this cycle: Cepheus, Lacerta, Andromeda, Pisces, Cetus, Fornax.

Transit Camelopardis, Auriga, Taurus, Orion, Lepus, Columba, Caelum.

New arrivals: Ursa Major, Leo Minor, Leo, Sextans, Pyxis, Puppis.

## **Binocular Clubs**

**Binocular Messier** – Monthly highlights include:

Easy -3, 34, 35, 36, 37, 38, 41, 42, 44, 45, 46, 47, 48, 50, 67, 93, 103.

Medium – 40, 49, 53, 63, 64, 78, 79, 81, 21, 94.

Hard – 1, 51, 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, 108, 109.

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

3, 4, 5, 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, 39, 40, 41, 42.

# **Other Clubs**

#### Messier

In addition to those listed under Binocular Messier, check out: 43, 76, 91, 98.

#### Caldwell

1, 2, 3, 5, 6, 7, 8, 10, 13, 14, 21, 23, 24, 25, 26, 29, 31, 32, 35, 36, 38, 39, 40, 41, 45, 46, 48, 49, 50, 52, 53, 54, 58, 59, 60, 61, 64, 71, 74, 79.

## **Double Star**

5, 8, 11, 14, 16, 17, 18, 20, 23, 25, 27, 28, 29, 32, 34, 35, 39, 40, 42, 43, 45, 51, 52, 53, 54, 55, 56, 57, 59, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 78, 79, 80, 81, 82, 83, 85, 92, 95, 98, 99, 100.

# Other Clubs (of the Solar System)

**Planetary (Planets and Dwarf Planets)** – These are the tasks that can be done this month:

Mercury, Saturn, and Pluto will not be visible during the evening hours. They are morning stars or too close to the sun.

Sun – Any clear day is a good time to get those sunspots. And they are on the rise...

The Sun sets at 1733 by mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 2/12 or after 2/26 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 2/25 and 2/26.

The Scarps requirement is best done on 2/27.

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 as long as it is visible in the nighttime sky.

Venus is in Aquarius and sets at 1953 mid-month.

Mars is in Taurus and is up all evening mid-month.

Ceres is in Virgo and rises at 2023 mid-month.

Jupiter is in Cetus and sets at 2110 mid-month.

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

Neptune is in Aquarius and sets at 1949 mid-month.

#### Lunar

Key timings are indicated below (all times are Pacific Time):

New, 2/19 @ 2306 4 days, 2/23 7 days, 2/26 10 days, none 14 days, 2/4

Old moon in new moons arms – before 2306 on 2/22, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 2306 on 2/16, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 2306 on 2/21, ~4 % illuminated. (48 hr > New)

Waning Crescent – after 2306 on 2/17, ~4 % illuminated. (48 hr < New)

# **Major Astronomical Events:**

2/3 – Uranus at Eastern Quadrature

2/4 – Lunar Apogee

2/8 – Alpha Centaurids Meteor Shower

2/16 – Saturn at Solar Conjunction

2/19 – Lunar Perigee

Although many Astronomical League Observing Programs 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 North Houston Astronomy Club website (www.astronomyclub.org).

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