What's Up, Doc? † February 2025

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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 also probably tracking where your objects are all the time. This concentrates on the more common and starter level clubs. All times are Mountain Time (Boise Idaho).

Naked-Eye Clubs

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

Shower	<u>Duration</u>	Maximum	Type
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:

Ceres, 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 1816 mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 2/20 or after 2/5 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 2/4 and 2/5.

The Scarps requirement is best done on 2/6.

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.

Mercury is in Aquarius and sets at 1833 mid-month.

Venus is in Pisces and set at 2144 mid-month.

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

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

Saturn is in Aquarius and sets at 1957 mid-month.

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

Neptune is in Pisces and sets at 2047 mid-month.

Lunar

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

New, 2/27 4 days, 2/2 7 days, 2/5 10 days, 2/8 14 days, 2/12

Old moon in new moons arms – before 1300 on 2/1, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 1745 on 2/24, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 1300 on 1/31 or before 1745 on 3/1, ~4 % illuminated. (48 hr > New)

Waning Crescent – after 1745 on 2/25, ~4 % illuminated. (48 hr < New)

Major Astronomical Events:

2/1 – Lunar Perigee 2/16 – Veus at Brightest Level

2/4 – Jupiter returns to Prograde Motion 2/17 – Lunar Apogee

2/9 – Moon and Mars Conjunction (46') 2/24 – Mars returns to Prograde Motion

2/15 – Ceres at Solar Conjunction 2/28 – Moon and Mercury Conjunction (23')

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 Astronomical League website: (https://www.astroleague.org/navigating-the-night-sky-guides/).

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