

# What's Up, Doc? †

## February, 2019

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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.

### 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>
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, Venus, Ceres, Jupiter, 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 1810 by mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 2/27 and after 2/11 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 2/10 or 2/11.

The Scarps requirement is best done on 2/12.

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.

Mars is in Aries and sets at 2301 midmonth.

Uranus is in Aries and sets at 2251 midmonth.

Neptune is in Aquarius and sets at 1929 midmonth.

## Lunar

Key timings are indicated below:

The New Moon is at exactly 2/4 at 1504. Full Moon is at exactly 2/19 at 0954.

New, 2/4                      4 days, 2/8                      7 days, 2/12                      10 days, 2/15                      14 days, 1/19

Old moon in new moons arms – before 1504 on 2/7, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 1504 on 2/1, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 0704 on 2/6, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 1504 on 2/2, ~4 % illuminated. (48 hr < New)

## The Astronomical League Observing Programs:

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.

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

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