

# What's Up, Doc? †

## May, 2016

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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 tracking where your objects are all the time. I have concentrated on the common and starter level clubs. This information is based on 9 PM.

### 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>
Eta Aquarids (ETA)	4/21 to 5/12	5/6	MAJOR
Epsilon Aquilids	5/4 to 5/27	5/17 & 5/18	minor
May Librids	5/1 to 5/9	5/6 & 5/7	minor
Eta Lyrids	5/3 to 5/12	5/8 to 5/10	minor
Northern May Ophiuchids	4/8 to 6/16	5/18 & 5/19	minor
Southern May Ophiuchids	4/21 to 6/4	5/13 to 5/18	minor
Epsilon Arietids	4/25 to 5/27	5/9 & 5/10	Daylight
May Arietids	5/4 to 6/6	5/16 & 5/17	Daylight
Omicron Cetids	5/7 to 6/9	5/14 to 5/25	Daylight
May Piscids	5/4 to 5/27	5/12 & 5/13	Daylight

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

Last Chance this cycle: Auriga, Monoceros, Pyxis, Vela (Orion, Taurus, Canis Major).

Transit Ursa Major, Leo Minor, Leo, Hydra, Sextans, Crater, Corvus, Antlia.

New arrivals: Draco, Corona Borealis, Libra.

### Binocular Clubs

**Binocular Messier** – Monthly highlights include:

Easy – 3, 5, 13, 35, 36, 37, 38, 44, 46, 47, 48, 50, 67, 92, 93.

Medium – 40, 49, 53, 63, 64, 81, 82, 83, 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 (by Astronomical League numbers):

5, 13, 14, 17, 18, 20, 26, 27, 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: 91, 98.

#### Caldwell

1, 2, 3, 4, 5, 6, 7, 21, 25, 26, 29, 31, 32, 35, 36, 38, 39, 40, 45, 46, 48, 49, 50, 52, 53, 54, 58, 59, 60, 61, 64, 66, 74, 77, 79.

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

5, 9, 11, 14, 15, 16, 17, 18, 20, 23, 25, 26, 27, 29, 32, 34, 35, 37, 39, 40, 41, 42, 43, 45, 51, 52, 54, 55, 56, 57, 58, 59, 65, 67, 68, 69, 70, 71, 74, 82, 91, 92, 98, 100.

## Other Clubs (of the Solar System)

**SPECIAL EVENT: The planet Mercury will transit the sun on May 9, 2016. Not to be missed.**

**Planetary** – These are the tasks that can be done this month:

Mercury, Venus, Ceres, Uranus, and Neptune will not be visible during the evening hours.

Sun is in Taurus and sets at 2005 mid-month. Any clear day is a good time to get sunspots.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 5/28 and after 5/13 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 5/12 or 5/13.

The Scarps requirement is best done on 5/14.

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

Mars is in Scorpius and rises at 2044 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.

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

Saturn is in Ophiuchus and rises at 2127 mid-month. All of the Saturn requirements can be done any time Saturn is visible: marking, rings, moons, etc.

Pluto is in Sagittarius and rises at 23:48 mid-month.

## Lunar

Key timings are indicated below:

New, 5/6      4 days, 5/10      7 days, 5/13      10 days, 5/16      14 days, 5/20

Old moon in new moons arms – before 1429 on 5/9, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 1429 on 5/3, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 0629 on 5/8, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 1429 on 5/4, ~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	
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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