

# What's Up, Doc? †

## June, 2017

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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>
<b>June Lyrids</b>	<b>6/10 to 6/21</b>	<b>6/15 &amp; 6/16</b>	<b>Moderate</b>
June Aquilids	6/2 to 7/2	6/16 & 6/17	minor
June Bootids	6/72 to 7/5	6/28 & 6/29	minor
Corvids	6/25 to 7/3	6/27 & 6/28	minor
Tau Herculids	5/19 to 6/19	6/9 & 6/10	minor
Ophiuchids	5/19 to 7/2	6/20 & 6/21	minor
Theta Ophiuchids	5/21 to 6/16	6/10 & 6/11	minor
Sagittarids	6/10 to 6/16	6/10 & 6/11	minor
Phi Sagittarids	6/1 to 7/15	6/18 & 6/19	minor
Chi Scorpiids	5/6 to 7/2	5/28 & 6/5	minor
Omega Scorpiids	5/19 to 7/11	6/3 to 6/6	minor
June Scutids	6/2 to 7/29	6/27 & 6/28	minor
Arietids	5/22 to 7/2	6/7 & 6/8	DAYLIGHT
Zeta Perseids	5/20 to 7/5	6/13 & 6/24	DAYLIGHT
Veta Taurids	6/5 to 7/18	6/29 & 6/30	DAYLIGHT

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

Last Chance this cycle: Lynx, Canis Minor, Cancer, Hydra, Antlia.

Transit Ursa Major, Canes Venatici, Coma Berenices, Virgo, Corvus.

New arrivals: Draco, Lyra, Hercules, Ophiuchus, Serpens, :upus.

### Binocular Clubs

**Binocular Messier** – Monthly highlights include:

Easy – 3, 4, 5, 10, 12, 13, 44, 67, 92.

Medium – 15, 19, 40, 49, 53, 63, 64, 80, 81, 82, 83, 94.

Hard – 9, 51, 56, 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, 107, 108, 109.

**Deep Sky Binocular** – Monthly highlights include (by Astronomical League numbers):

5, 34, 38, 42, 43, 45, 46, 47, 50, 56.

### Other Clubs

#### Messier

In addition to those listed under Binocular Messier, check out: 57, 91, 98.

#### Caldwell

1, 2, 3, 4, 5, 6, 7, 12, 15, 21, 25, 26, 29, 32, 35, 36, 38, 39, 40, 45, 48, 52, 53, 59, 60, 61, 66, 77, 80, 83.

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

1, 9, 10, 11, 12, 14, 15, 16, 17, 18, 20, 22, 23, 25, 26, 29, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 48, 50, 51, 52, 54, 56, 57, 58, 59, 65, 66, 67, 68, 69, 70, 71, 74, 86, 87, 91, 92, 93, 94, 96, 100.

## Other Clubs (of the Solar System)

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

Mercury, Venus, Uranus, and Neptune are morning “stars” this month.

Sun – Any clear day is a good time to get those sunspots, if there are any to be seen.

Sunset 20:21 mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 6/16 or after 6/1 and 6/30 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 6/1, 6/29, or 6/30.

The Scarps requirement is best done on 6/2.

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. See above to identify the bright ones this month.

Mars is in Gemini and sets by 21:22 mid-month.

Ceres is in Aquarius and rises at 00:49 mid-month.

Jupiter is in Virgo and sets by 02:30 mid-month..

Saturn – is in Ophiuchus and is up all night mid-month. Any time that Saturn is visible it is possible to do the four Saturnian requirements: the Rings, the Cassini Division, Disk Markings and the Satellites.

Pluto – in Sagittarius, rises at 21:55 mid-month.

## Lunar

Key timings are indicated below:

New, 6/23      4 days, 6/27      7 days, 6/1, 6/30      10 days, 6/4      14 days, 6/8

Old moon in new moons arms – before 21:32 on 6/26, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 21:32 on 6/20, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 13:32 on 6/25, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 21:32 on 6/21, ~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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