# What's Up, Doc? †

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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. I have concentrated on the more common and starter level clubs. This information is for the Central Time Zone, Houston, TX.

# **Naked-Eye Clubs**

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

<u>Shower</u>	<u>Duration</u>	<b>Maximum</b>	<b>Type</b>
Eta Draconids	3/22-4/8	3/29-3/31	Minor
Beta Leonids	2/14-4/25	3/19-3/21	Minor
Rho Leonids	2/13-3/13	3/1-3/4	Minor
Leonids-Ursids	3/18-4/7	3/10 & 3/11	Minor
Delta Mensids	3/14-3/21	3/18 & 3/19	Minor
Gamma Normids	3/11-3/21	3/16 & 3/17	Minor
Eta Virginids	2/24-3/27	3/18 & 3/19	Minor
Pi Virginids	2/13-4/8	3/3-3/9	Minor
Theta Virginids	3/10-4/21	3/20 & 3/21	Minor
March Aquarids	2/1-4/30	3/15-3/18	Daytime Shower

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

Last Chance this cycle: Cassiopeia, Andromeda, Traingulum, Aries, Caelum.

Transit Camelopardis, Lynx, Gemini, Canis Minor, Monoceros, Canis Major, Puppis.

New arrivals: Canes Venatici, Coma Berenecis, Crater, Corvus, Antlia, Pyxis.

# **Binocular Clubs**

**Binocular Messier** – Monthly highlights include:

Easy -31, 34, 35, 36, 37, 38, 41, 42, 44, 45, 46, 47, 48, 50, 52, 67, 93, 103.

Medium – 33, 40, 49, 63, 64, 78, 79, 81, 82, 94.

Hard – 1, 32, 51, 65, 66, 97, 101, 106.

Big Binoculars – 58, 59, 60, 61, 77, 84, 85, 86, 87, 88, 89, 90, 95, 96, 99, 100, 102, 105, 108, 109, 110.

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

1, 3, 4, 5, 6, 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, 60.

## **Other Clubs**

Messier: Messier Marathon (seeing all 110 in one night) is ideal on 3/14/2015 and 3/21/2015! In addition to those listed under Binocular Messier, check out: 43, 74, 76, 91, 98.

### Caldwell

1, 2, 3, 5, 7, 8, 9, 10, 11, 13, 14, 17, 18, 21, 23, 24, 25, 26, 28, 29, 31, 32, 35, 36, 38, 39, 40, 41, 46, 48, 49, 50, 53, 54, 58, 59, 64, 71, 73.

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

2, 3, 5, 8, 11, 16, 17, 19, 20, 23, 24, 25, 27, 28, 32, 33, 34, 40, 42, 45, 49, 51, 52, 53, 55, 57, 59, 60, 61, 63, 65, 66, 67, 68, 69, 70, 71, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 95, 98, 99.

## Other Clubs (of the Solar System)

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

Mercury, Saturn, Neptune, 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. Sunset is at 1929 mid-month.

### Moon:

The Maria requirement can be done any time the moon is visible. Look before 3/14 and after 3/28 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 3/26 or 3/27.

The Scarps requirement is best done on 3/28.

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

Venus is in Pisces and sets at 2036 mid-month.

Mars is in Taurus and sets and is visible all evening mid-month.

Ceres is in Coma Berenices and rises at 1958 mid-month.

Jupiter is in Pisces at sets at 2036 mid-month.

Uranus is in Aries and sets at 2312 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.

#### Lunar

Key timings are indicated below:

New, 3/21 4 days, 3/24 7 days, 3/27 10 days, 3/2, 3/31 14 days, 3/6

Old moon in new moons arms – before 1223 on 3/24, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 1223 on 3/18, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 1223 on 3/23, ~4 % illuminated. (48 hr > New)

Waning Crescent – after 1223 on 3/19, ~4 % illuminated. (48 hr < New)

### **Major Events in March:**

- 3/2 Mercury/Saturn conjunction (55')
- 3/2 Venus/Jupiter conjunction (32')
- 3/3 Lunar apogee
- 3/12 Start of Daylight Saving Time
- 3/14 Gamma Normids Meteor Shower
- 3/15 Neptune at solar conjunction
- 3/16 Mars at eastern quadrature
- 3/17 Mercury at superior solar conjunction
- 3/19 Lunar perigee
- 3/21 Ceres at solar opposition
- 3/22 Moon/Jupiter conjunction (32')
- 3/24 Moon/Venus conjunction (6')
- 3/31 Lunar apogee
- \* 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. 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.
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