# What's Up, Doc? †

## February, 2013

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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 concentrate on the more common and starter level clubs.

## **Naked-Eye Clubs**

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

<b>Shower</b>	<b>Duration</b>	<b>Maximum</b>	<b>Type</b>
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)

**Comets** – Down to magnitude 12:

273P/2012 V4 – Pons-Gambart (9.0), C/2011 F1 – LINEAR (9.5), C/2012 K5 – LINEAR (12.0), C/2012 T5 – Bressi (11.6).

## Planetary (Planets and Dwarf Planets) – These are the tasks that can be done this month:

Pluto and Venus 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 18:08 by mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 2/3 and after 2/17 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 2/16 or 2/17.

The Scarps requirement is best done on 2/18.

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.

Mercury is in Aquarius and sets at 19:37 by mid-month.

Mars is in Aquarius and sets at 19:14 by midmonth.

Ceres is in Taurus sets at 03:08 by midmonth.

Jupiter is in Taurus and sets at 01:52 by midmonth.

Saturn is in Libra and rises at 23:46 by midmonth.

Uranus is in Pisces and sets at 21:10 by midmonth.

Neptune is in Aquarius and sets at 18:36 by mid-month.

## Lunar

Key timings are indicated below:

New, 2/10 4 days, 2/14 7 days, 2/17 10 days, 2/20 14 days, 2/24

Old moon in new moons arms – before 01:20 on 2/13,  $\sim 10$  % illuminated. (72 hr > New)

New moon in old moons arms – after 01:20 on 2/7, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 17:20 on 2/11, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 01:20 on 2/8, ~4 % illuminated. (48 hr < New)

## **Clubs Not Covered**

* ARP Peculiar Galaxies	Earth Orbiting Satellites	* Sky Puppies	* Herschel 400
* Globular Clusters	Master Observer	Constellation Hunter	– South
* Urban	Galileo	* Open Clusters	* Universe Sampler
* Galaxy Groups & Clusters	Outreach	* Dark Nebula	* Flat Galaxies
* Herschel II	* Southern Skies Binocular	Asteroids	Sunspotters
* Planetary Nebulae	* Southern Skies Telescope	Dark Sky Advocate	Lunar II
* C 1 C			

- \* Carbon Star
- \* 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 3.4.1). To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to <a href="mailto:aaron@clevenson.org">aaron@clevenson.org</a>
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