

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 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>Showers</u> | <u>Duration</u> | <u>Maximum</u> | <u>Type</u> |
|--------------------------------|---------------------|------------------------|-----------------|
| Southern Delta Aquarids | 7/14 to 8/18 | 7/28 & 7/29 | Moderate |
| Alpha Lyrids | 7/9 to 7/20 | 7/14 & 7/15 | minor |
| July Phoenicids | 7/9 to 7/17 | 7/14 & 7/15 | minor |
| Alpha Pisces Asutralids | 7/16 to 8/13 | 7/30 & 7/31 | minor |
| Sigma Capricornids | 6/18 to 7/30 | 7/10 to 7/20 | minor |
| Tau Capricornids | 6/2? to 7/29 | 7/12 & 7/13 | minor |
| Omicron Draconids | 7/6 to 7/28 | 7/17 & 7/18 | minor |

Constellation Hunter, Northern Skies (and some Southern Skies) – any night, any time, anywhere, the darker the sky the better.

Last Chance this cycle: Ursa Major, Leo Minor, Leo, Crater, Corvus.

Transit: Ursa Minor, Draco, Hercules, Corona Borealis, Serpens, Ophiuchus, Libra, Scoprus, Lupus, Norma.

New arrivals: Cepheus, Lacerta, Cygnus, Vulpecula, Sagitta, Delphinus, Equuleus, Aquila, Scutum, Sagittarius, Corona Australis.

Earth Orbiting Satellites – Most requirements can be seen naked-eye. Information about all satellite passes required for this certification can be found on the website: www.heavens-above.com. Be sure to provide accurate latitude and longitude for your observing site.

Binocular Clubs

Binocular Messier – Monthly highlights include:

Easy – 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 16, 17, 18, 22, 23, 24, 25, 27, 29, 39, 52, 92.

Medium – 14, 19, 28, 40, 49, 53, 62, 63, 64, 80, 81, 82, 83, 94.

Hard – 9, 26, 51, 54, 56, 65, 66, 68, 71, 97, 101, 104, 106.

Big Binoculars – 58, 59, 60, 61, 69, 70, 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, 38, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59.

Other Clubs

Messier

In addition to those listed under Binocular Messier, check out: 21, 57, 91, 98.

Caldwell

1, 2, 3, 4, 6, 7, 9, 11, 12, 15, 16, 19, 20, 21, 26, 27, 29, 32, 33, 34, 35, 36, 37, 38, 40, 42, 45, 47, 52, 57, 60, 61, 66, 69, 75, 76, 77.

Double Star (by Astronomical League numbers):

1, 4, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 22, 25, 26, 29, 31, 35, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 48, 50, 51, 52, 54, 56, 57, 58, 59, 62, 64, 66, 67, 68, 69, 70, 71, 74, 84, 86, 87, 91, 92, 93, 94, 96, 97, 100.

Other Clubs (of the Solar System)

Comets – down to magnitude 12:

C/2008 Q3 Gerrard (8.0), C/2006 W3 Christensen (8.2), 22P Kopff (9.3).

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

Sun – Any clear day is a good time to get those sunspots.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 7/4 and after 7/18 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 7/17 or 7/18.

The Scarps requirement is best done on 7/19.

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 Cancer and sets by 21:35, 70 minutes after sunset.

Venus is in Leo and sets by 22:50.

Mars is in Leo and sets by 23:30.

Dwarf Planet Ceres is in Taurus and rises at 04:30.

Jupiter is in Pisces and rises at 00:00.

Saturn is in Virgo and sets by 00:00. All requirements can be done when Saturn is visible: markings, moons, etc.

Uranus is in Pisces and rises at 23:50.

Neptune is in Aquarius and rises at 22:18.

Dwarf planet Pluto is in Sagittarius and is up all night.

Lunar

Key timings are indicated below (times are Central Time):

New, 7/11 4 days, 7/15 7 days, 7/18 10 days, 7/21 14 days, 7/25

Old moon in new moons arms – before 14:40 on 7/14, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 14:40 on 7/8, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 06:40 on 7/13, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 14:40 on 7/9, ~4 % illuminated. (48 hr < New)

Clubs Not Covered

| | | |
|---------------------------------------|---------------------|-----------------|
| * ARP Peculiar Galaxies | Master Observer | Sunspotters |
| Constellation Hunter – Southern Skies | * Universe Sampler | * Herschel 400 |
| * Galaxy Groups & Clusters | * Sky Puppies | * Herschel II |
| * Southern Skies Binocular | * Planetary Nebulae | * Open Clusters |
| * Southern Skies Telescope | * Globular Clusters | * Urban |

* - 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 5.0). To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to aaron@clevenson.org

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