

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 a more advanced club, then I assume you are tracking where your objects are all the time. I have concentrated on common and starter level clubs. This information is based on 9 PM Eastern Time.

Naked-Eye Clubs

Meteors

<u>Showers</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
Leonids	11/13 to 11/20	11/17 @ 23:00	Major
Northern Taurids	10/12 to 12/2	11/4 to 11/7	Moderate
Southern Taurids	9/17 to 11/27	10/30 to 11/7	Moderate
Andromeids	9/25 to 12/6	11/14 & 11/15	Minor
Alpha Monocerotids	11/13 to 12/2	11/21	Minor
Alpha Pegasids	10/29 to 11/17	11/1 & 11/2	Minor

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

Last Chance this cycle: Lyra, Vulpecula, Sagitta, Aquila, Capricornus, Piscis Austrinus, Grus.

Transit: Cepheus, Cassiopeia, Lacerta, Pegasus, Andromeda, Pisces, Cetus, Phoenix, Sculptor.

New arrivals: Auriga, Taurus, Orion, Eridanus, Fornax, Phoenix.

Binocular Clubs

Binocular Messier – Monthly highlights include:

Easy – 2, 15, 27, 29, 31, 34, 35, 36, 37, 38, 39, 45, 52, 103.

Medium – 30, 33, 81, 82.

Hard – 1, 32, 56, 71.

Big Binoculars – 72, 77, 110.

Deep Sky Binocular – Monthly highlights include:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 34, 38, 43, 47, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60.

Other Clubs

Messier

In addition to those listed under Binocular Messier, check out: 57, 73, 74, 76.

Caldwell

1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 27, 28, 30, 31, 33, 34, 37, 41, 42, 43, 44, 47, 51, 55, 56, 62, 63, 65, 67, 70, 72.

Double Star

2, 3, 6, 7, 8, 10, 13, 19, 21, 24, 27, 28, 30, 31, 33, 36, 38, 42, 44, 46, 47, 48, 49, 50, 53, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 77, 83, 84, 85, 88, 89, 90.

Other Clubs (of the Solar System)

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

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

Sun – Any clear day is a good time to get those sunspots. Sunset mid-month is at [1654](#).

Moon:

The Maria requirement can be done any time the moon is visible. Look after 11/30 and before 11/16 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 11/1, 11/29 and 11/30.

The Scarps requirement is best done on 11/2.

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 Taurus and rises at 2038 by mid-month.

Jupiter is in Pisces and is up all evening by mid-month.

Saturn is in Capricornus and is up all evening by mid-month.

Uranus is in Aries and rises at 1826 by mid-month.

Neptune is in Aquarius and is up all evening by mid-month.

Pluto is in Sagittarius and sets at 2256 by mid-month.

Lunar

Key timings are indicated below:

New, 11/23 4 days, 11/27 7 days, 11/1 10 days, 11/4 14 days, 11/8

Old moon in new moon's arms – before 1557 on 11/26, ~10 % illuminated. (72 hr > New)

New moon in the old moon's arms – after 1557 on 11/20 and after 1944 on 11/30,
~10 % illuminated (72 hr < New)

Waxing Crescent – before 1557 on 11/25, ~4 % illuminated (48 hr > New)

Waning Crescent – after 1557 on 11/21, ~4 % illuminated (48 hr < New)

Celestial Events

- **11/8 – Total Lunar Eclipse (0909 to 1249, maximum at 1059 UTC)**
- 11/8 – Lunar Occultation of Uranus
- 11/8 – Mercury at Superior Solar Conjunction
- 11/9 – Uranus at Opposition
- 11/11 – Saturn at Eastern Quadrature
- 11/14 – Moon at Apogee
- 11/19 – Mercury at Aphelion
- 11/23 – Jupiter ends Retrograde Motion
- 11/25 – Moon at Perigee
- 11/30 – Mars at Perigee

* - 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. It is also available on the club website.

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