

What's Up, Doc? †

July 2025 (Eastern Daylight Time)

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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 Eastern Time at about 39° North Latitude (Washington DC).

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>
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//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 14 & 7, Corona Borealis, Serpens, Ophiuchus, Libra, Scorprius, 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)

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

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

Sunset is at 2034 at mid-month.

Moon:

The Maria requirement can be done any time the moon is visible. Look after 7/2, before 7/17 or after 7/31 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 7/1, 7/2, 7/30, and 7/31.

The Scarps requirement is best done on 7/3.

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

Venus, Ceres, Jupiter, and Uranus are not available in the evening sky mid-month.

Mercury is in Cancer and sets at 2124 mid-month.

Mars is in Leo and sets at 2302 mid-month.

Saturn is in Pisces rises at 2345 mid-month.

Neptune is in Pisces and sets at 2342 mid-month.

Pluto is in Capricornus and is up all evening mid-month.

Asteroids – Course Plotting and Measuring Movement requirements can be done at any time on any asteroid.

Lunar

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

New, 7/24 4 days, 7/28 7 days, 7/2 & 7/31 10 days, 7/5 14 days, 7/9

Old moon in new moons arms – before 1511 on 7/27. ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 1511 on 7/21, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 1511 on 7/26, ~4 % illuminated. (48 hr > New)

Waning Crescent – after 1511 on 7/22, ~4 % illuminated. (48 hr < New)

Major Astronomical Events this Month:

- 7/3 – Mercury at Greatest Elongation – East
- 7/3 – Earth at Aphelion
- 7/4 – Neptune begins retrograde motion
- 7/5 – Lunar Apogee
- 7/13 – Saturn begins retrograde motion
- 7/18 – Mercury begins retrograde motion
- 7/26 – Venus at highest morning altitude
- 7/30 – Southern Delta Aquarids Meteor Shower
- 7/30 – Alpha Capricornids Meteor Shower
- 7/31 – Mercury at Inferior Conjunction

* - Although these Observing Programs 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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www.humbleisd.net/observatory