What's Up, Doc? †

Dr. Aaron B. Clevenson, Observatory Director, Insperity Observatory

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 Central Daylight Time.

Naked-Eye Clubs

Meteors

<u>Duration</u>	<u>Maximum</u>	Type
10/15 to 10/29	10/21	Major
9/7 to 10/27	10/8 & 10/9	Minor
9/22 to 10/23	10/6 to 10/15	Minor
9/20 to 11/2	10/1 to 10/5	Minor
9/8 to 10/30	10/5 & 10/6	Minor
9/22 to 10/11	10/4 to 10/9	Minor
10/6 to 10/10	10/7	Minor
10/10 to 10/27	10/18 & 10/19	Minor
10/5 to 10/16	10/12 & 10/13	Minor
9/24 to 10/9	9/30 to 10/4	DAYTIME
	10/15 to 10/29 9/7 to 10/27 9/22 to 10/23 9/20 to 11/2 9/8 to 10/30 9/22 to 10/11 10/6 to 10/10 10/10 to 10/27 10/5 to 10/16	10/15 to 10/29 10/21 9/7 to 10/27 10/8 & 10/9 9/22 to 10/23 10/6 to 10/15 9/20 to 11/2 10/1 to 10/5 9/8 to 10/30 10/5 & 10/6 9/22 to 10/11 10/4 to 10/9 10/6 to 10/10 10/7 10/10 to 10/27 10/18 & 10/19 10/5 to 10/16 10/12 & 10/13

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

Last Chance this cycle: Serpens, Ophiuchus, Sagittarius, Corona Australis.

Transit: Cepheus, Lacerta, Cygnus, .Vulpecula, Pegasus, Delphinus, Equuleus, Aquarius, Capricorn, Piscis Austrinus, Microscopium

New arrivals: Perseus, Aries, Triangulum, Cetus, Sculptor, Grus.

Binocular Clubs

Binocular Messier – Monthly highlights include:

Easy – 2, 8, 10, 11, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 27, 29, 31, 34, 39, 52, 55, 92, 103.

Medium – 14, 28, 30, 33.

Hard – 9, 26, 32, 54, 56, 71, 75, 101.

Big Binoculars –69, 70, 72, 102, 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, 43, 44, 45, 46, 47, 48, 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: 21, 57, 73, 74, 76.

Caldwell

6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 27, 28, 30, 33, 34, 37, 42, 43, 44, 47, 51, 55, 56, 57, 62, 63, 65, 68.

Double Star (by Astronomical League numbers):

1, 2, 4, 6, 7, 10, 12, 13, 15, 19, 21, 24, 26, 30, 31, 33, 35, 36, 37, 38, 39, 41, 43, 44, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 84, 88, 89, 90, 96.

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 1850.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 10/18 and after 10/5 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 10/4, 10/5 or 10/31.

The Scarps requirement is best done on 10/6.

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.

Mercury, Venus, Ceres, and Uranus are not visible in the evening sky.

Mars is in Taurus and rises at 2143 mid-month.

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

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

Uranus is in Aries and rises at 1935 mid-month.

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

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

Lunar

Key timings are indicated below:

New, 10/25 4 days, 10/2 or 10/29 7 days, 10/5 10 days, 10/8 14 days, 10/12

Old moon in new moons arms – before 0548 on 10/28, ~10 % illuminated. (72 hr > New)

New moon in old moons arms – after 0548 on 10/22, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 0548 on 10/27, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 0548 on 10/23, ~4 % illuminated. (48 hr < New)

Special Events this month (also see the moon and meteor shower information):

- November 3 Moon/Mercury Conjunction, 1.2 degrees.
- November 5 Southern Taurid Meteor Shower.
- November 5 Uranus at Opposition.
- November 5 Moon at Perigee.
- November 8 Moon/Venus Conjunction, 1.1 degrees.
- November 10 Moon/Saturn Conjunction, 4.1 degrees.
- November 11 Moon/Jupiter Conjunction, 4.4 degrees.
- November 12 Northern Taurid Meteor Shower.
- November 17 Leonid Meteor Shower.
- November 19 Partial Lunar Eclipse, 0903 GMT.
- November 21 Moon at 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 (version 4.1). To get your copy, talk to the Doc, Aaron Clevenson, by sending an email to aaron@clevenson.org.
- † "What's Up Doc?" is used with permission from Warner Bros. Entertainment Inc.
- © 2022 Aaron B. Clevenson. All international rights reserved. This work may be copied and distributed as is, without modification, free of charge for educational purposes only.

Insperity Observatory, 2505 S. Houston Avenue, Humble, TX: www.humbleisd.net/observatory