

What's Up, Doc? †

September 2022

Dr. Aaron B. Clevenson, Observatory Director, Insperty 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 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. All times are US **Eastern** Time.

Naked-Eye Clubs

Meteors

<u>Showers</u>	<u>Duration</u>	<u>Maximum</u>	<u>Type</u>
Gamma Aquarids	9/1 to 9/14	9/7 & 9/8	Minor
Alpha Triangulids	9/5 to 9/15	9/11 & 9/12	Minor
Alpha Aurigids	8/25 to 9/6	9/1 & 9/2	Minor
Eta Draconids	8/28 to 9/23	9/12 & 9/13	Minor
Gamma Piscids	8/26 to 10/22	9/23 & 9/24	Minor
Southern Piscids	8/12 to 10/7	9/11 to 9/20	Minor

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

Last Chance this cycle: Draco, Canes Venatici, Bootes, Serpens, Libra, Scorpius, Telescopium.

Transit: Cygnus, Lyra, Sagitta, Vulpecula, Delphinus, Aquila, Scutum, Sagittarius.

New arrivals: Andromeda, Pisces, Pegasus, Aquarius, Microscopium, Piscis Austrinus.

Binocular Clubs

Binocular Messier – Monthly highlights include:

Easy – 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 22, 23, 24, 25, 27, 29, 31, 39, 52, 55, 92, 103.

Medium – 14, 19, 28, 30, 33, 40, 62, 63, 80, 81, 82, 94.

Hard – 9, 26, 32, 51, 54, 56, 71, 75, 101, 106.

Big Binoculars – 69, 70, 72, 102, 107, 109, 110.

Deep Sky Binocular – Monthly highlights include (by Astronomical League numbers):

1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 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, 76, 108.

Caldwell

1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 27, 28, 29, 30, 33, 34, 37, 42, 43, 44, 47, 55, 57, 63, 68, 69, 76, 78.

Double Star (by Astronomical League numbers):

1, 4, 7, 9, 10, 12, 13, 14, 15, 18, 21, 22, 26, 29, 31, 35, 36, 37, 38, 39, 41, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 54, 56, 57, 58, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71, 72, 84, 86, 87, 88, 89, 90, 91, 93, 94, 96, 97.

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 mid-month is at 1916.

Moon:

The Maria requirement can be done any time the moon is visible. Look before 9/21 and after 9/3 for the fullest views.

The Highlands requirement can be done at the same time.

The Crater Ages requirement is best done on 9/2 and 9/3.

The Scarps requirement is best done on 9/4.

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.

Venus is not visible in the evening sky this month.

Mercury is in Virgo and sets at 1945 mid-month.

Mars is in Taurus and rises at 2339 mid-month.

Ceres is not visible in the evening sky this month.

Jupiter is in Pisces and rises at 2000 mid-month.

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

Uranus is in Aries and rises at 2205 mid-month.

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

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

Lunar (times are shown for Eastern US Time)

Key timings are indicated below:

New, 9/25 4 days, 9/29 7 days, 9/3 10 days, 9/6 14 days, 9/10

Old moon in new moons arms – not visible in September

New moon in old moons arms – after 2158 on 9/25, ~10 % illuminated. (72 hr < New)

Waxing Crescent – before 2158 on 9/30, ~4 % illuminated. (40 hr > New)

Waning Crescent – after 2158 on 9/26, ~4 % illuminated. (48 hr < New)

The Astronomical League Observing Programs:

Analemma	ARP Peculiar Galaxies	Asterisms	Asteroids
Binocular Double Star	Binocular Messier	Caldwell	Carbon Star
Comets	Constellation Hunter – North	Constellation Hunter – South	Dark Nebulae
Dark Sky Advocate	Deep Sky Binocular	Double Star	Earth Orbiting Satellite
Flat Galaxy	Galaxy Groups & Clusters	Galileo	Globular Clusters
Herschel 400	Herschel II	Local Galaxy Group & Neighborhood	
Lunar	Lunar II	Mars	Master Observer
Messier	Meteor	Multiple Star	NEO
Open Clusters	Outreach	Planetary Nebulae	Planetary Transit
Sky Puppy	Solar System Observers	Southern Skies Binocular	Southern Skies Telescope
Spectroscopy	Sunspotters	Stellar Evolution	Universe Sampler
Urban	Variable Star	Planetary Transit	

* - 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.

† - “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.

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