



Introduction to Stargazing!

The Northern Colorado Astronomical Society welcomes you to the night sky!

This document contains tools, resources and information that you can use to get the most out of skygazing events with our club, at a dark location or in your own backyard.

Please download and save this information for future reference. If you need more help, please feel to contact us at the email addresses below:

Website- www.nocoastro.org

Outreach Coordinator – outreach@nocoastro.org

Education Coordinator – treas@nocoastro.org

President – pres@nocoastro.org

Vice President – vp@nocoastro.org

Secretary – sec@nocoastro.org

Night Sky Navigation Apps:

*Sky Guide (Apple devices): [Sky Guide — Fifth Star Labs](#)

Easy to use and packed with powerful stargazing features, Sky Guide takes full advantage of today's most powerful hardware.

Star Walk (Apple / Android): [Star Walk 2 | Vito Technology](#)

Star Walk 2 is a powerful, easy-to-use, and informative stargazing guide that can be used by both adults and children, amateur astronomers and newcomers, for educational and entertainment purposes.

*Sky Safari (Apple / iOS / Android): <https://skysafariastromy.com>

Powerful, full featured planetarium program with multiple levels from basic night sky navigation up to professional telescope control.

Stellarium-Web: [Stellarium Web Online Star Map \(stellarium-web.org\)](http://stellarium-web.org)

Interactive and fun app for PC or phones.

** Used by our Astronomers at NCAS events.*

Star Charts:

You can use the following apps to create a star chart customized for the particular day, time and location you want to observe:

[Sky & Telescope \(skyandtelescope.org\)](http://skyandtelescope.org)

[Skymaps.com - Publication Quality Sky Maps & Star Charts](http://skymaps.com)

You can also purchase a planisphere – a star chart which can be rotated and aligned for specific dates and times. Make sure you purchase one that covers our latitude (40 degrees north) or the latitude you intend to observe at.

[Astronomy 40° North Planisphere | The Space Store](#)

[Amazon.com : planisphere](#)



Tips to Maximize Your Enjoyment of the Night Sky!

1. Preserve Night Vision (yours and those around you!):

- Did you know that it can take 20 - 30 minutes for your eyes to re-adapt to see dim objects after exposure to white light?
- Use dim red light when stargazing – red light helps maintain night vision. If you don't have a red flashlight or headlight, make one:
[Astronomy: Hacking a Redlight : 10 Steps \(with Pictures\) - Instructables](#)
- Park away from the telescopes and park in a direction so that your headlights don't sweep the viewing area when you leave.
- If you have the option, turn off your car's dome light.
- Set your phone for red screen – see instructions on [page 5](#).

2. Dress Warmly:

- Stargazing is always cooler than you would think, even in the summer! You typically are not moving around much, and you lose heat under the night sky.
- We recommend dressing for 20 degrees cooler than the forecast temperature. If it is forecast to be 50F at the time you are observing, dress for 30F. Bring mosquito repellent if applicable.

3. Familiarize yourself with some basic stars and constellations.

- Some key northern constellations for summer are Ursa Major (Big Dipper asterism), Boötes, Corona Borealis, Sagittarius (Teapot asterism), Leo, Virgo, Cassiopea and Scorpius.
- The Summer Triangle asterism (Vega in Lyra, Deneb in Cygnus and Altair in Aquila) is fun to use for navigating the summer sky.
- If you are in a dark sky area, you should see the summer milky way starting at Sagittarius in the south, flying through Cygnus high in the sky and going down to Cassiopea in the north.

4. The National Park Service site:

https://www.nps.gov/articles/000/idkt_stargazing.htm

Setup your phone so you can turn the screen red:

iPhone:

Newer Models (iPhone X and above)

1. Go to Settings → Accessibility → Display and Text Size → Color Filters.
2. Enable Color Filters by tapping the toggle at the top of the screen.
3. Select "Color Tint" as the filter type.
4. Slide the intensity and hue all the way to the right.

Older Models (iPhone 8 and below)

1. Go to Settings → General → Accessibility → Display Accommodations
2. Enable Color Filters by tapping the toggle at the top of the screen.
3. Select "Color Tint" as the filter type.
4. Slide the intensity and hue all the way to the right

To streamline the process of switching between a regular screen and a red-tinted screen, you can set up a convenient triple-click shortcut on the lock button of your iPhone:

Newer Models (iPhone X and above)

1. Go to Settings → Accessibility.
2. Scroll to the bottom and select "Accessibility Shortcut."
3. Choose the "Color Filters" option from the list.

Older Models (iPhone 8 and below)

1. Go to Settings → General → Accessibility.
2. Scroll to the bottom and select "Accessibility Shortcut."
3. Choose the "Color Filters" option from the list.

Android:

Use the Twilight feature to set your screen to red while stargazing. Links for instructions:

[Turn your phone red- blue light reduction- Android \(youtube.com\)](#)

[Twilight: Blue light filter - Apps on Google Play](#)

Reasons to Join the NCAS:

We'd love to have you in our constellation!

For \$25/year you get –

- Membership in the Astronomical League and the quarterly Reflector magazine.
- Membership in NASA's Night Sky Network
- Monthly membership meetings with meet and greet and presentations with guest speakers from the Planetary Institute, LASP, CU, CSU and others.
- Hands-on training events - experienced club members teach you how to use your telescope!
- Member observing events
- Telescope loaner program
- Opportunities to join us in providing solar observing and stargazing events for the public
- Group night hike and astrophotography workshop
- And many more ...

Go to our website to join: [Home | NoCoAstro](#)

We look forward to seeing you under the night sky!