

Tips for Stellarium The New Moon Series



Stellar stellarium.org

- Stellarium is a free plantetary software program that can be downloaded for free from <u>https://stellarium.org/</u>
- Be sure to download the user guide for the version you are using.
- I originally used version 0.17.0, but a newer version is now available.



- When you first open Stellarium, it fills your entire computer screen.
- Two popup tool bars are located vertically and horizontally at the bottom left of your screen. (Slide your cursor over each/both of them so they will pop up.)
- When you place your cursor over the individual buttons, their names will appear to the right of the vertical bar and above the horizontal bar.



- These buttons have short-cut keys that can perform the same functions.
- I will share the most common ones that I have been using while researching and working on the new moon series.
- You can access the user manual for more detailed information on the program.

 Select the Full Screen Mode button (F11) on the horizontal bar to cause the customary minimize / maximize/ close buttons to appear at the top right of the screen.



- On the horizontal bar, select the following buttons:
- Constellation lines (C)
- Constellation labels (V)



- On the vertical bar, select the Location window (F6) button.
- Choose your location or any location you are interested in viewing from.



- On the vertical bar, select Date/Time window (F5).
- On the Date/Time window, select Date and Time tab.
 - Change the date (year, month, day) on the left under Date and Time Tab.
 - Change Time (hours, minutes, seconds). While still using the Date and Time tab, time physically appears under the words "Julian Day."

Date and Time									×	
Date and Time					Julian Day					
*				A	<u>^</u>				*	
2018	-	9	-	4	10	:	44	:	2	
Y		-		-			*		-	
Year		Month		Day	Hour		Minute		Seconds	

- Using the Date and Time Window can rarely be tricky because if it doesn't like how you change the date or time, it will boot you out of the program.
- I haven't figure out exactly which key stroke combinations cause this. If this happens, don't give up. Fortunately, I haven't noticed this yet with the newer version.
- You can use the arrows or highlight the numbers and change them.

- On the horizontal bar:
- You can change your time speeds.
- Decrease time speed (J)
- Increase time speed (L).
- Normal time rate (K). (You can pause the time by toggling Set normal time rate [K].)



- Sky and Viewing Options Window (F4) is on the left vertical bar.
- Sky Tab: Leave projection on Stereographic.
- SSO Tab: It is helpful when wanting to see the moon to select "scale moon" and set it to 4.00 to increase its size. (Previously, this was located under the Sky tab.)



- Markings Tab: For the celestial field, select ecliptic grid (of date), equinoxes (of date), and ecliptic (of date), and cardinal points.
- Close View window.



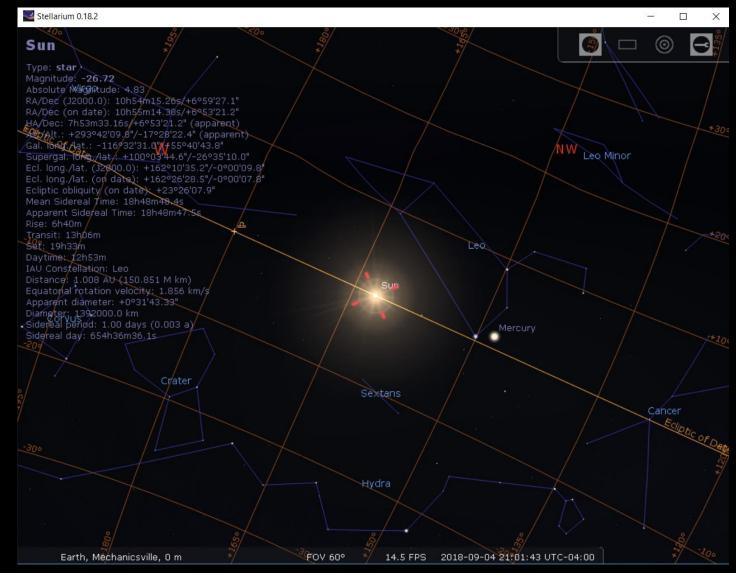


 Cardinal points (N, S, E, & W) will appear opposite of what you expect.

 Note the conjunction of the moon (scaled x4); this is the black dot that appears to be on the sun.

- Select Search window (F3).
- Under the Object tab of the Search Window, type in what you are looking for (ex. sun or moon) followed by the search button (magnifying glass).
- The screen will shift you to the location of the object you are searching for.

- All kinds of information for that object will appear in the upper left of the screen.
- If you search for the sun, look for:
- Ecliptic longitude/latitude (on date) which gives the position of sun in degrees for the date entered.
- IAU Constellation position





- If you click on something else on the screen, the information will change. If necessary, repeat your original search or click on the desired object if it is nearby.
- Depending on the time of day, the screen will be day time (light) or night time (dark).

- If you can't see the object you are looking for, the earth's ground might be in the way.
- Try toggling on the ground button (G) on the horizontal bar to remove/replace the ground.



- Take time to do searches for the sun and/or moon using a desired date.
- Next, you can manually scroll through the Time and Date (years, months, days, hours) to see how the sun or moon moves along the ecliptic over the years, months, days, and hours.
- You can also change the speed and watch it change that way instead of manually.



• Don't be afraid to play with the program and use the user guide to learn its other features and see how the celestial bodies move.

• Enjoy!