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Coming Soon

We hope that everyone is staying safe during these uncertain times! Due to the university transitioning to distance learning, the planetarium will be closed for the foreseeable future. But we will still be sharing content, and finding new ways to stay connected with the universe!

We will be celebrating the 50th anniversary of Earth Day with free online, virtual shows on April 22nd. This will include a family-friendly overview of climate change in West Virginia at 1 PM, followed by a show on planetary science and climate change at 7 PM. More information is down below- be sure to follow us on social media to stay in touch!

<table>
<thead>
<tr>
<th>Constellation</th>
<th>Rise</th>
<th>Set</th>
<th>Magnitude</th>
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<td>-2.2</td>
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<tr>
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<td>Jupiter</td>
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<tr>
<td>Saturn</td>
<td>12:00 AM</td>
<td>9:42 AM</td>
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*Note: all magnitude values are taken to be at 9:00 PM
**Popcorn or the Sun?**

The most powerful solar telescope has begun the highest resolution imaging of the Sun. The first images from the Daniel K. Inouye Solar Telescope in Hawai‘i were released on January 29th of this year and look a lot like a bowl of popcorn! The detailed depiction of the Sun’s surface this telescope can capture holds the ability to greatly expand our knowledge about the Sun, how the Sun affects us on Earth, space weather, and more.

This close up view of the surface of the Sun shows the movement and interactions of extremely hot plasma, which makes up the surface of the Sun. While this is the highest resolution image we have to date, the cell-like structures are still about the size of Texas. They signify the motion of heat from deep inside the Sun, where temperatures can reach up to 27 million degrees Fahrenheit in the core, to the surface. The motion of the plasma is seen as the bright center of the cells are due to the hotter plasma coming up from the inner portions of the Sun, while the dark outlines of the cells are the cooler plasma that is sinking.

Before the Daniel K. Inouye Solar Telescope, the largest solar telescope was the Big Bear Solar Observatory with a 1.6 meter dish. However, the Inouye Solar Telescope has quickly surpassed its predecessor with a dish size of 4 meters. While the telescope did take its first images recently, the surrounding protective dome will not finish construction until July. The dome contains part of the cooling system needed to protect the solar telescope. In order to create the images of the Sun, solar power, i.e. heat, must be focused by the mirrors. The immense amount of heat must be removed to mitigate overheating the sensitive equipment of the telescope.

The Daniel K. Inouye Solar Telescope will take the most precise measurements of the magnetic field of the Sun. The Sun’s magnetic field is constantly changing and is the cause of solar flares and coronal mass eruptions. All the byproducts of activity on the Sun’s surface is known as space weather. This is the superheated gas, or solar wind, that is released from eruptions on the Sun’s surface. It is important for us on Earth to understand space weather, and maybe even predict it, as the solar wind can bypass Earth’s own protective magnetic field and disrupt our technology and communication systems.

This news is super exciting for our WVU Plasma and Space Physics group! Inouye Solar Telescope will offer our researchers focusing on solar physics, space weather, and plasma in general, high quality data like nothing seen before.

Currently, the WVU Planetarium is following the lead of the university and WV Governor Jim Justice’s “stay-at-home” message to help mitigate the spread of COVID-19 and suspending all field trips, private shows, and public shows. All in-person events scheduled between March 14th and May 8th have been cancelled. We are unsure when we will be able to hold shows again, but we are following the university’s lead at this time. We are currently NOT taking any more reservations for ANY events. We are taking these precautionary steps to protect the public, children, and our staff in these dire times. Thank you for your understanding, and we hope to back up and running very soon!

We will be celebrating the 50th anniversary of Earth Day with free online, virtual shows on April 22nd. This will include a family-friendly overview of climate change in West Virginia at 1 PM, followed by a show on planetary science and climate change at 7 PM. These shows will be held over Zoom, a free video-conferencing tool. In order to join these shows, simply follow the links below:

April 22
nd, 1 PM: Climate Change in the Mountain State (family friendly- middle school and younger)  
https://wvu.zoom.us/j/659203006

April 22
nd, 7 PM: Climate Change from a Planetary Science Perspective (recommended high school and older, but all are welcome!)  
https://wvu.zoom.us/j/721055975

**Selected Sunrise/Sunset and Moon Rise/Moon Set Times**

<table>
<thead>
<tr>
<th>Date</th>
<th>Sunrise</th>
<th>Sunset</th>
<th>Moon Rise</th>
<th>Moon Set</th>
<th>Moon Phase</th>
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<tbody>
<tr>
<td>April 1st</td>
<td>7:03 AM</td>
<td>7:44 PM</td>
<td>12:21 PM</td>
<td>3:42 AM</td>
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</tr>
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<td>6:46 AM</td>
<td>7:55 PM</td>
<td>12:26 AM</td>
<td>10:08 AM</td>
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<tr>
<td>April 22nd</td>
<td>6:31 AM</td>
<td>8:05 PM</td>
<td>6:39 AM</td>
<td>7:46 PM</td>
<td>New Moon</td>
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<td>May 1st</td>
<td>6:19 AM</td>
<td>8:14 PM</td>
<td>1:25 PM</td>
<td>3:48 AM</td>
<td>Waxing Gibbous</td>
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<td>May 10th</td>
<td>6:09 AM</td>
<td>8:23 PM</td>
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<td>8:46 AM</td>
<td>Waning Gibbous</td>
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<tr>
<td>June 1st</td>
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<td>8:41 PM</td>
<td>3:58 PM</td>
<td>3:56 AM</td>
<td>Waxing Gibbous</td>
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<tr>
<td>June 20th</td>
<td>5:52 AM</td>
<td>8:50 PM</td>
<td>5:18 AM</td>
<td>8:30 PM</td>
<td>Waning Crescent</td>
</tr>
</tbody>
</table>

*Note: moon set times can be the next day*

**Full Moon:**  
April 7
th (Super Moon!), May 7
th, June 5
th

**New Moon:**  
April 22
nd, May 22
nd, June 21
st
April 2020 Sky Chart
10:00 PM on the 1st of the month

*Sky Chart used with the kind permission of Heavens-Above at http://www.heavens-above.com/
The WVU Planetarium is for the educational benefit of WVU students, staff, and faculty members, as well as the local community. Should you wish to make a contribution to the planetarium, it can be made through the WVU Planetarium Project at the WVU Foundation, Inc., through methods available on our website at http://planetarium.wvu.edu/give. Thank you.
May 2020 Sky Chart*

10:00 PM on the 1st of the month

*Sky Chart used with the kind permission of Heavens-Above at http://www.heavens-above.com/

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June 2020 Sky Chart*
10:00 PM on the 1st of the month

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