

December 2021
Observing Report



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Planets:

Mercury – Behind Sun

Venus, Saturn & Jupiter – Getting lower in the Southwest in the early evening.

Mars – Becoming visible in morning eastern sky.

Moon:

New – Dec 03

1st Quarter – Dec 10

Full – Dec 18

Last Quarter – Dec 26



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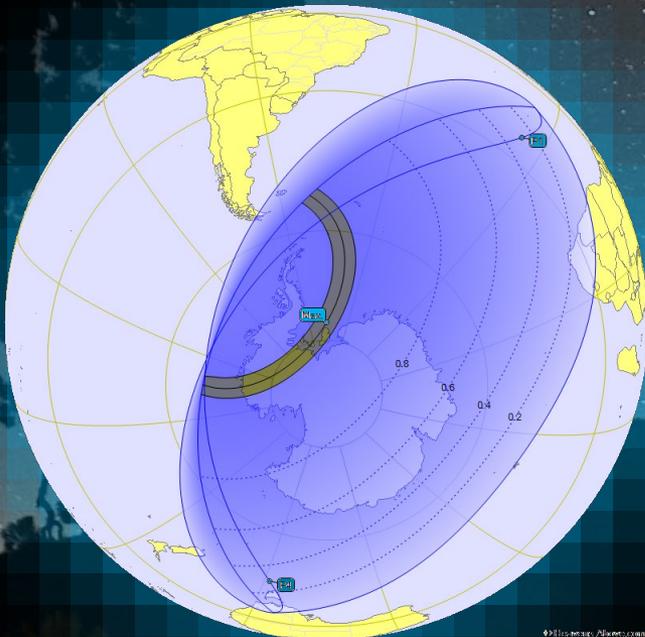
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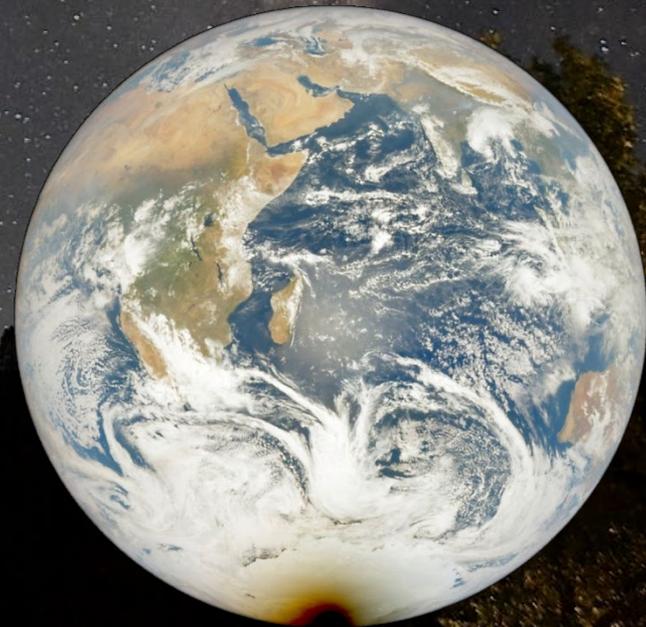
Last Quarter – Dec 26

Total Solar Eclipse Dec 4th over Antarctica. Not even a partial in the US.



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NASA Deep Space Climate Obs

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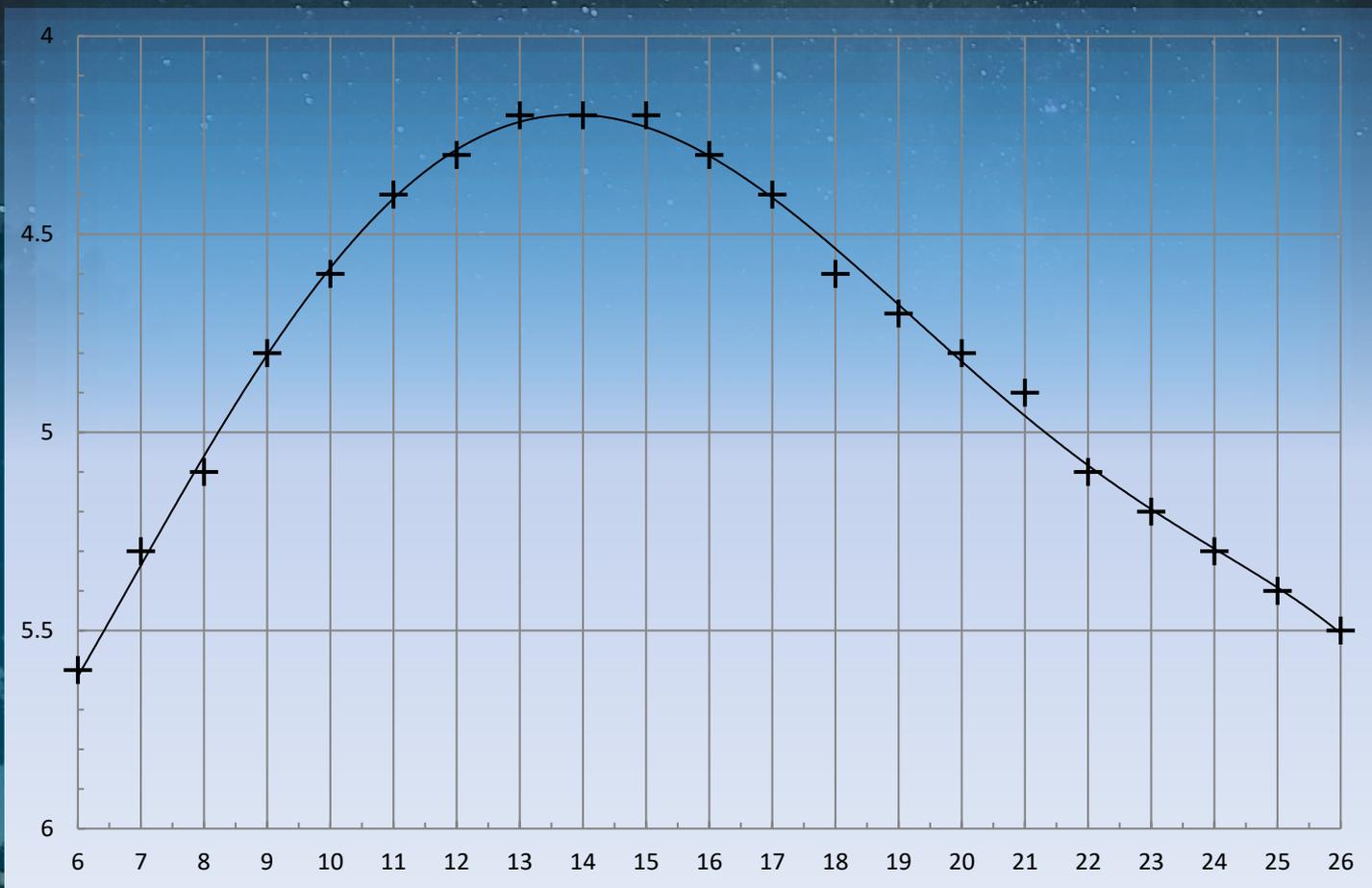
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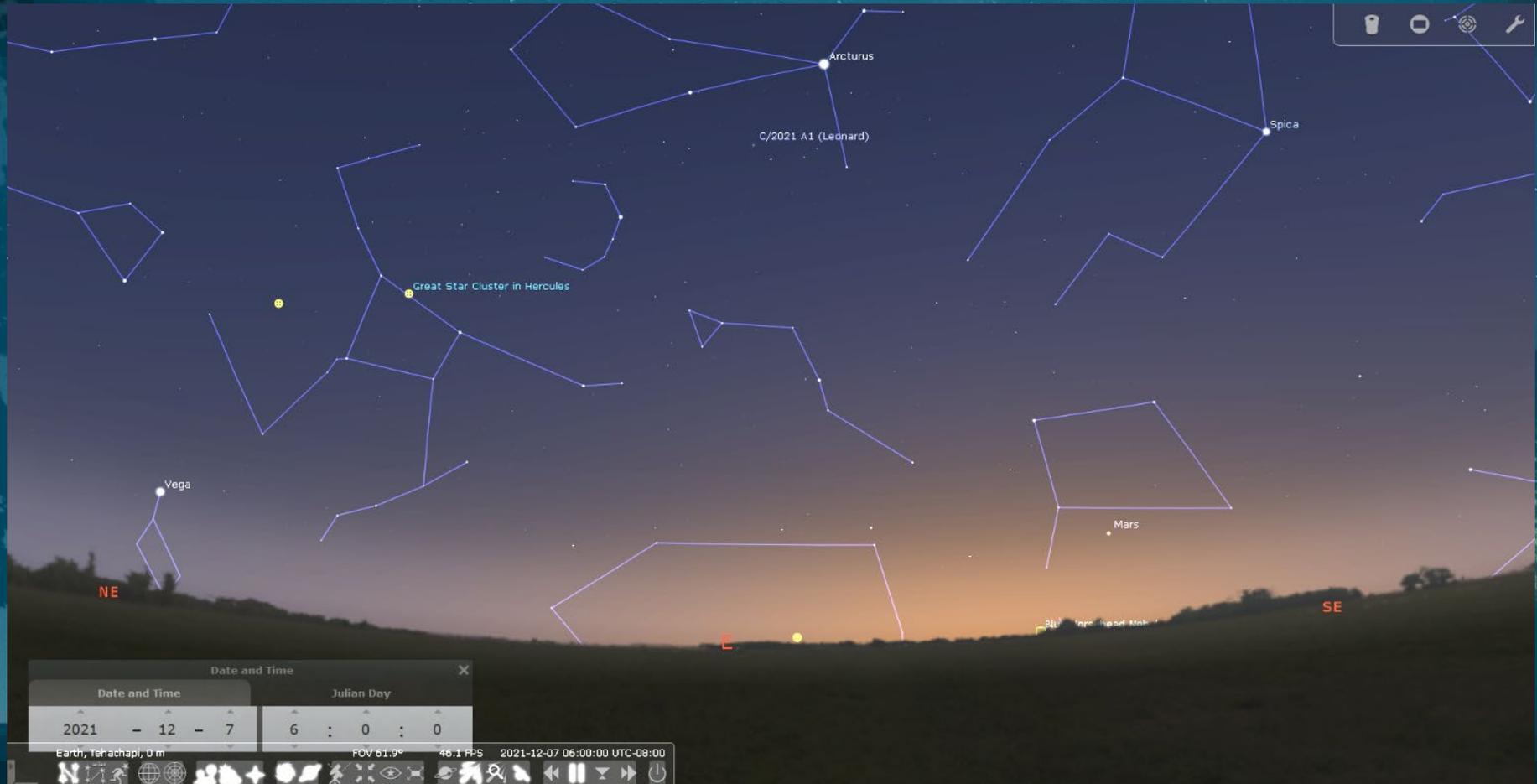
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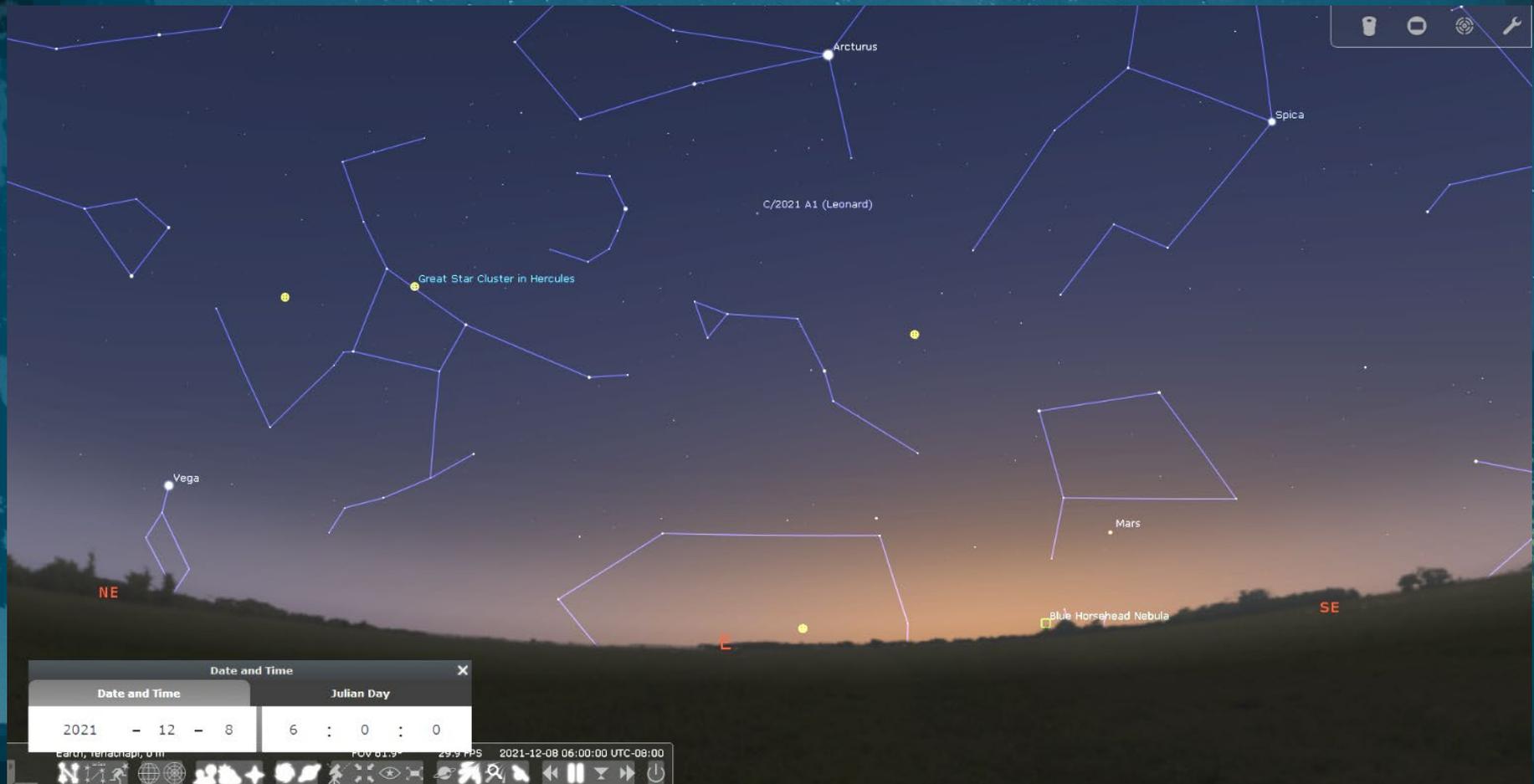
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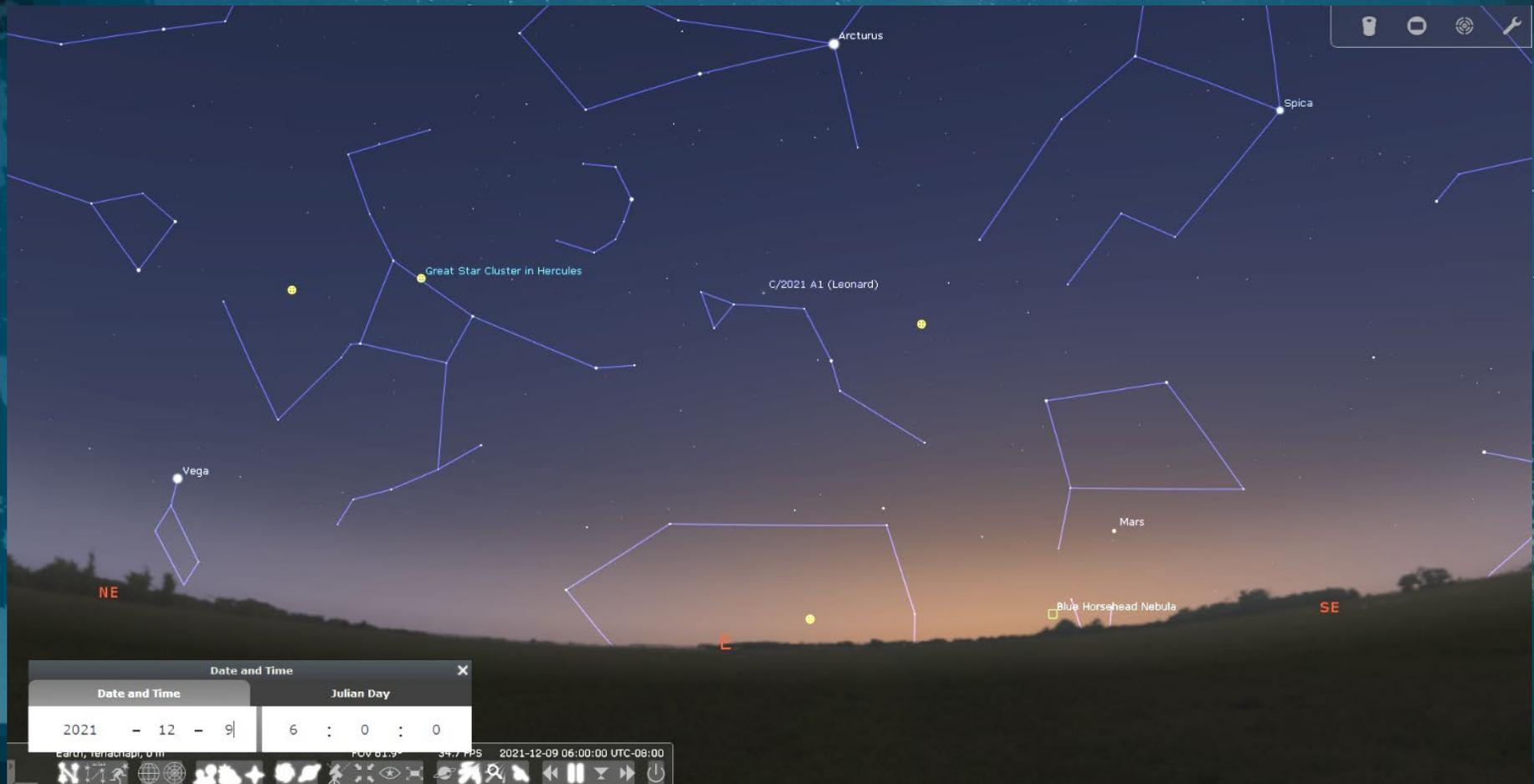
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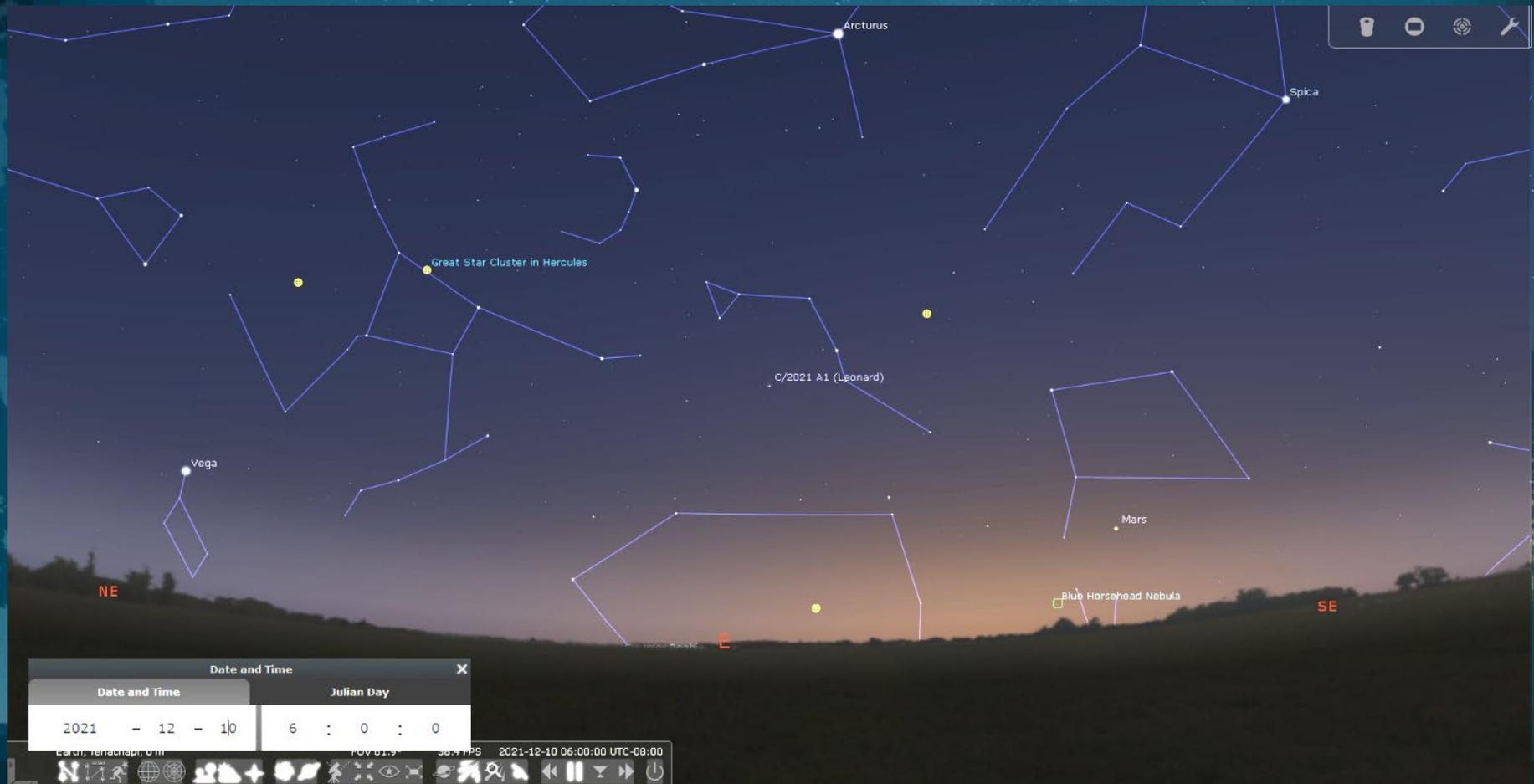
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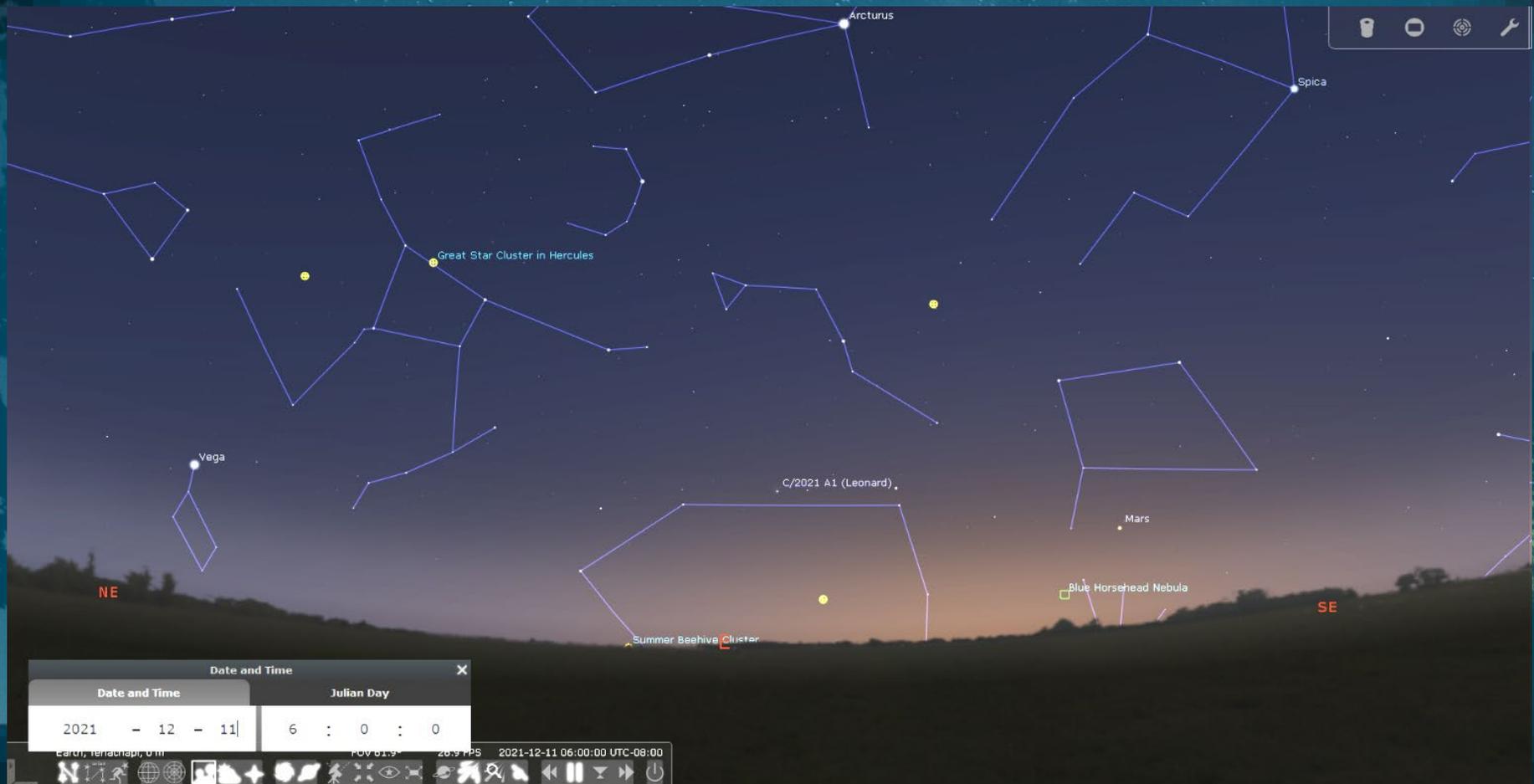
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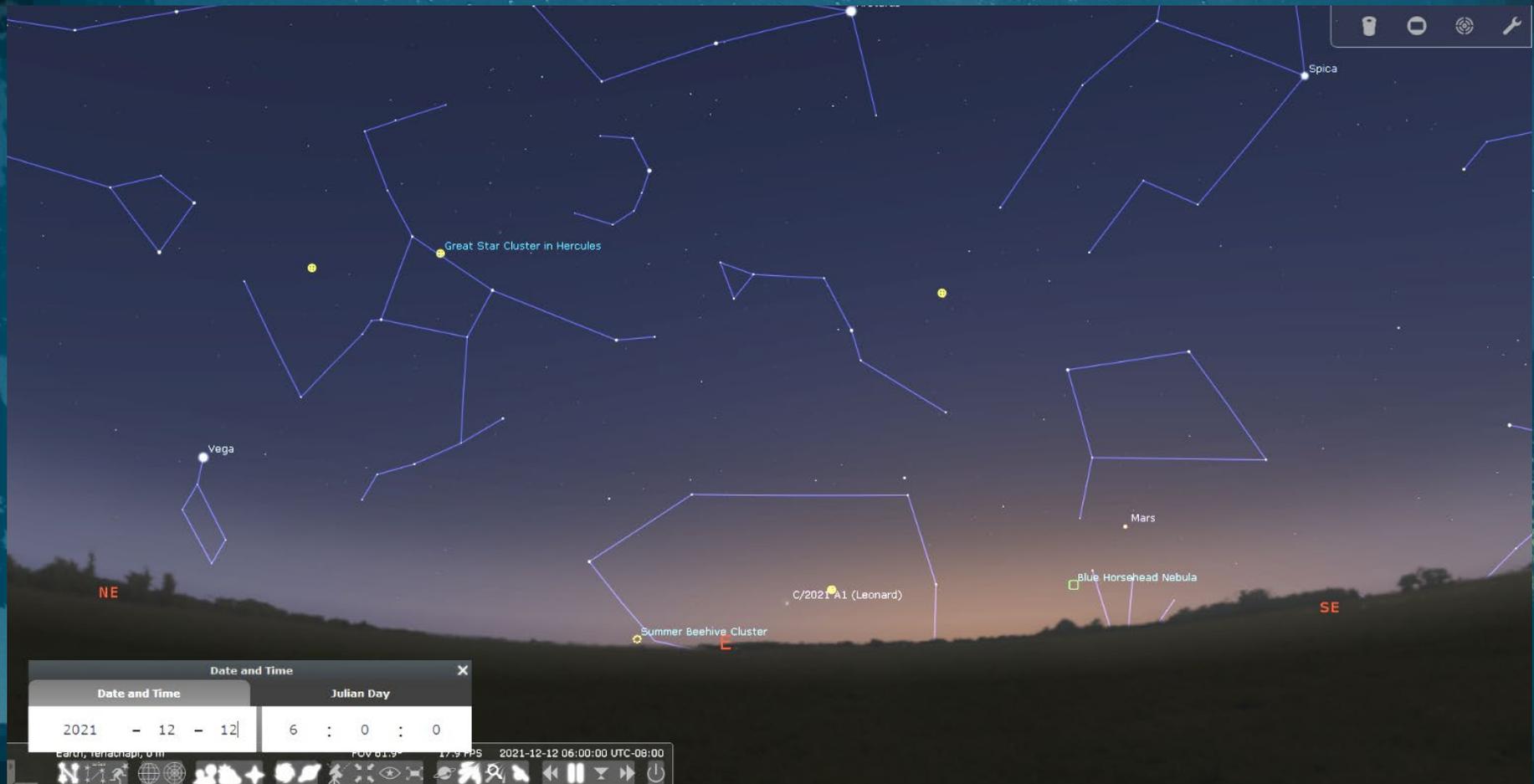
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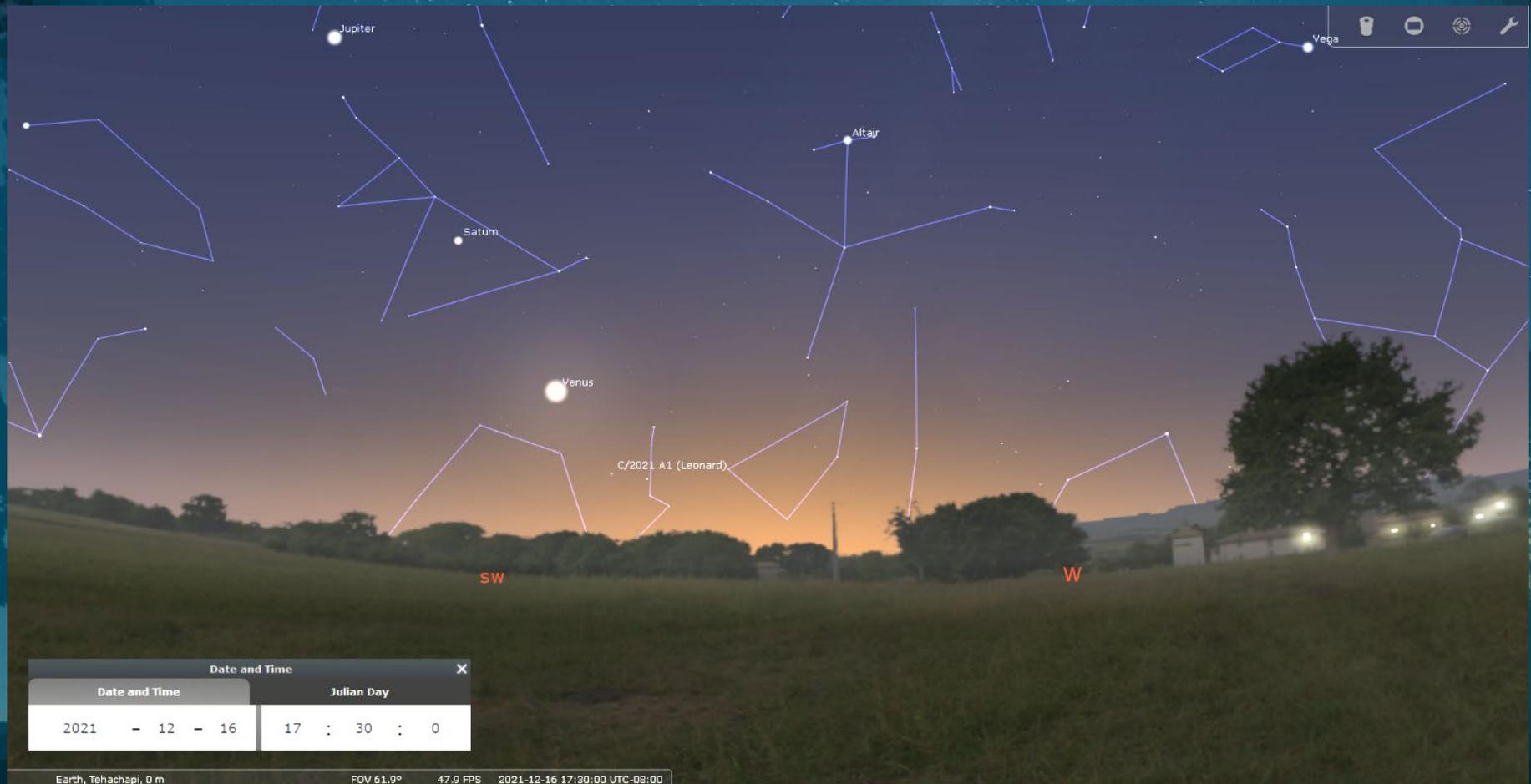
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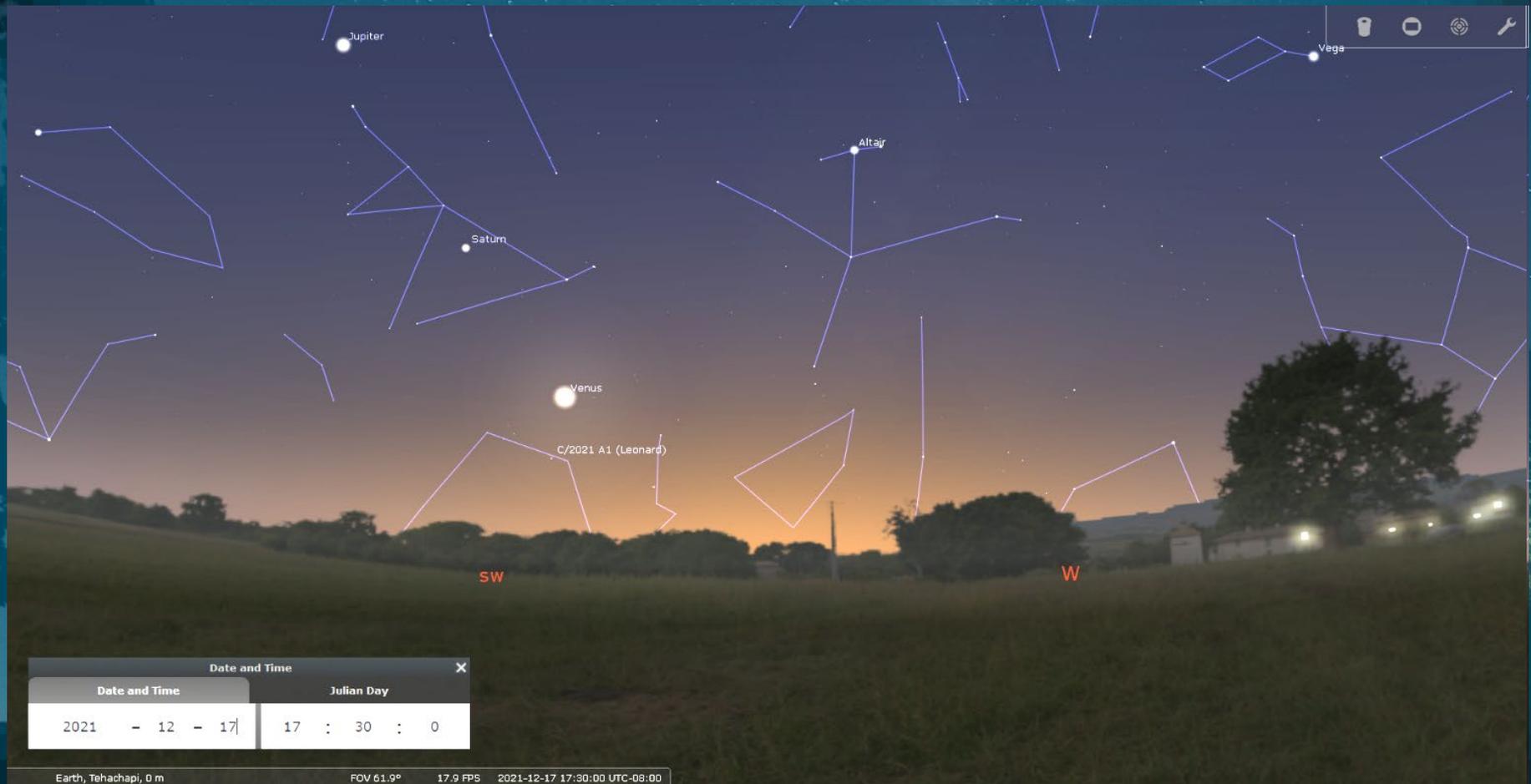
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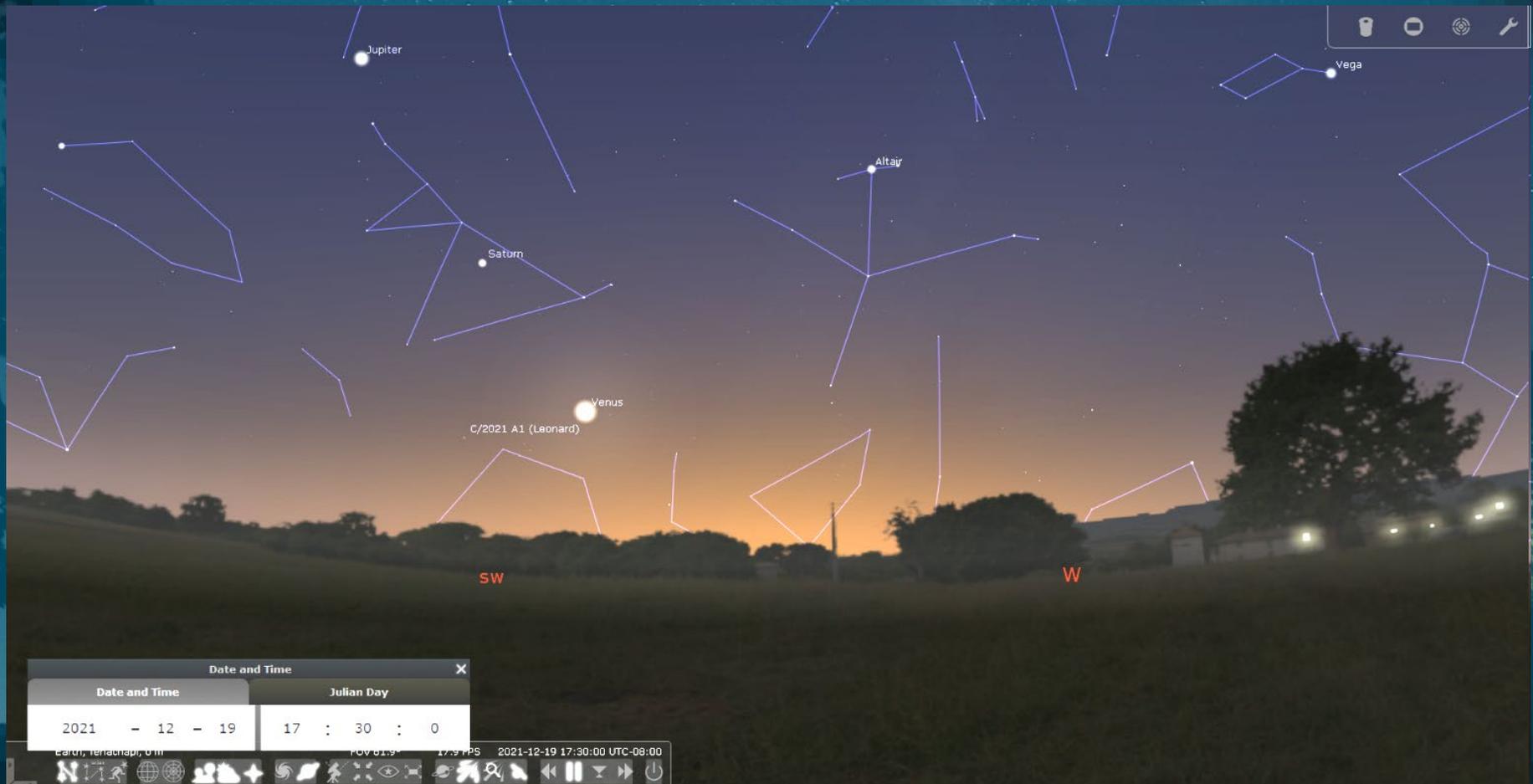
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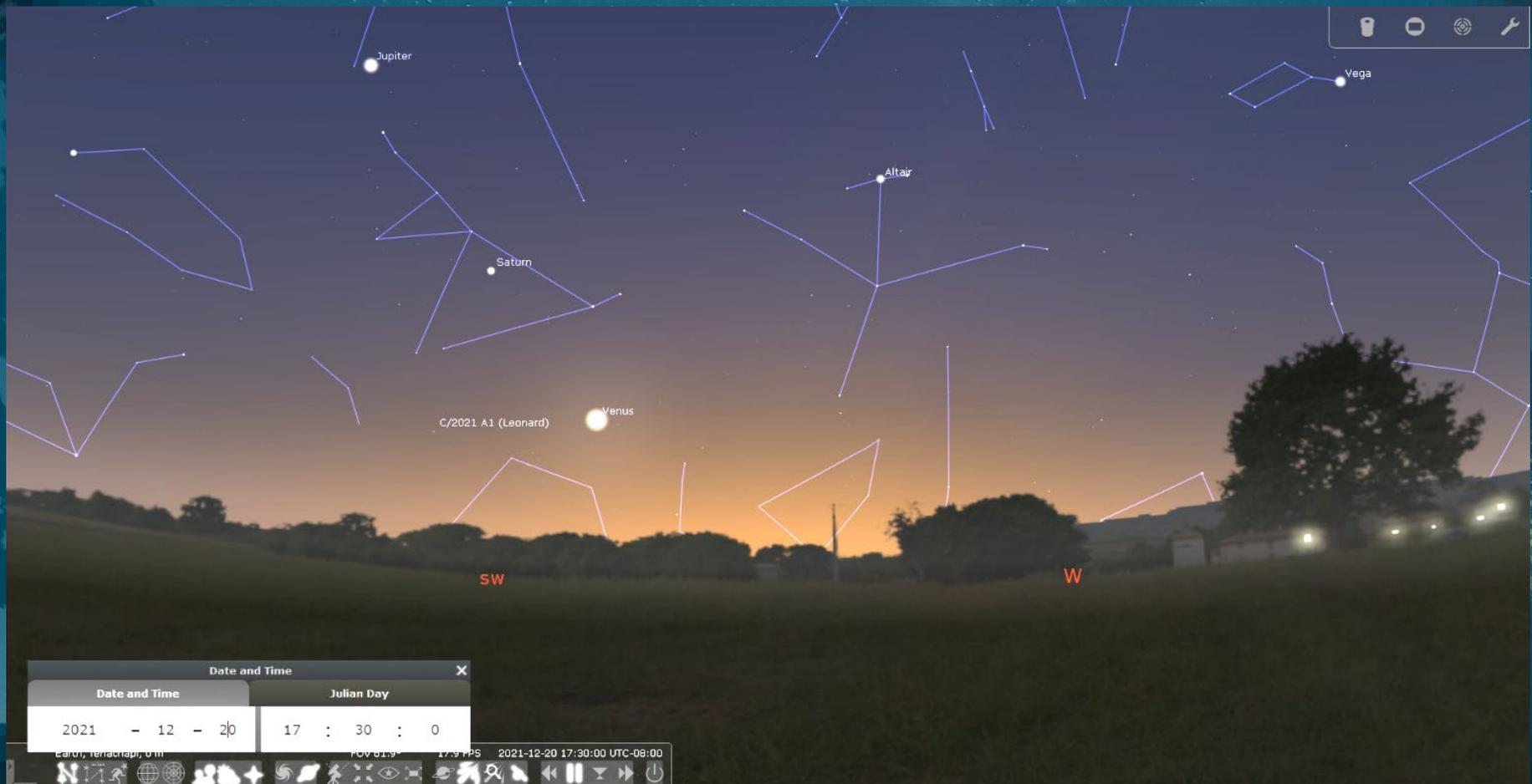
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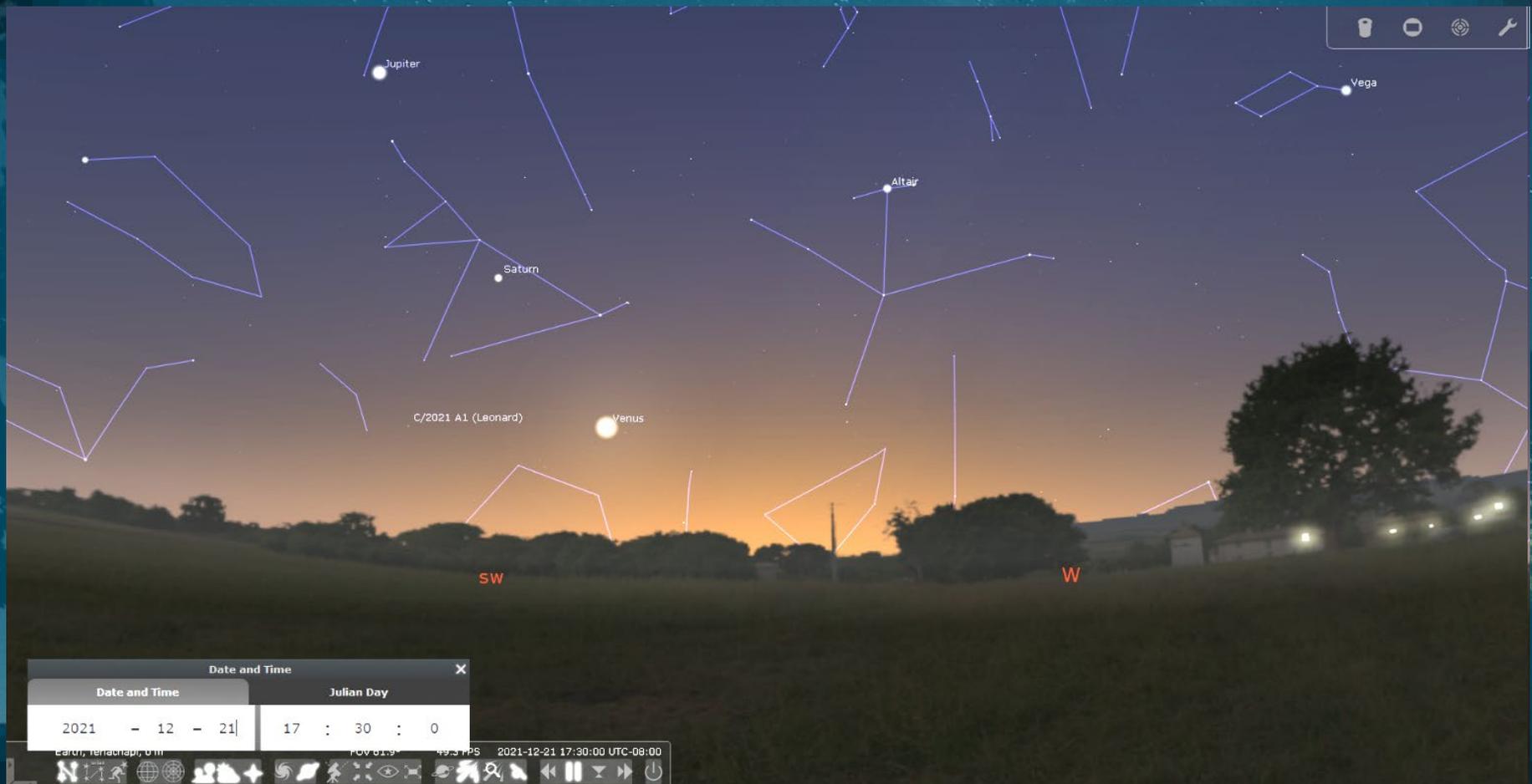
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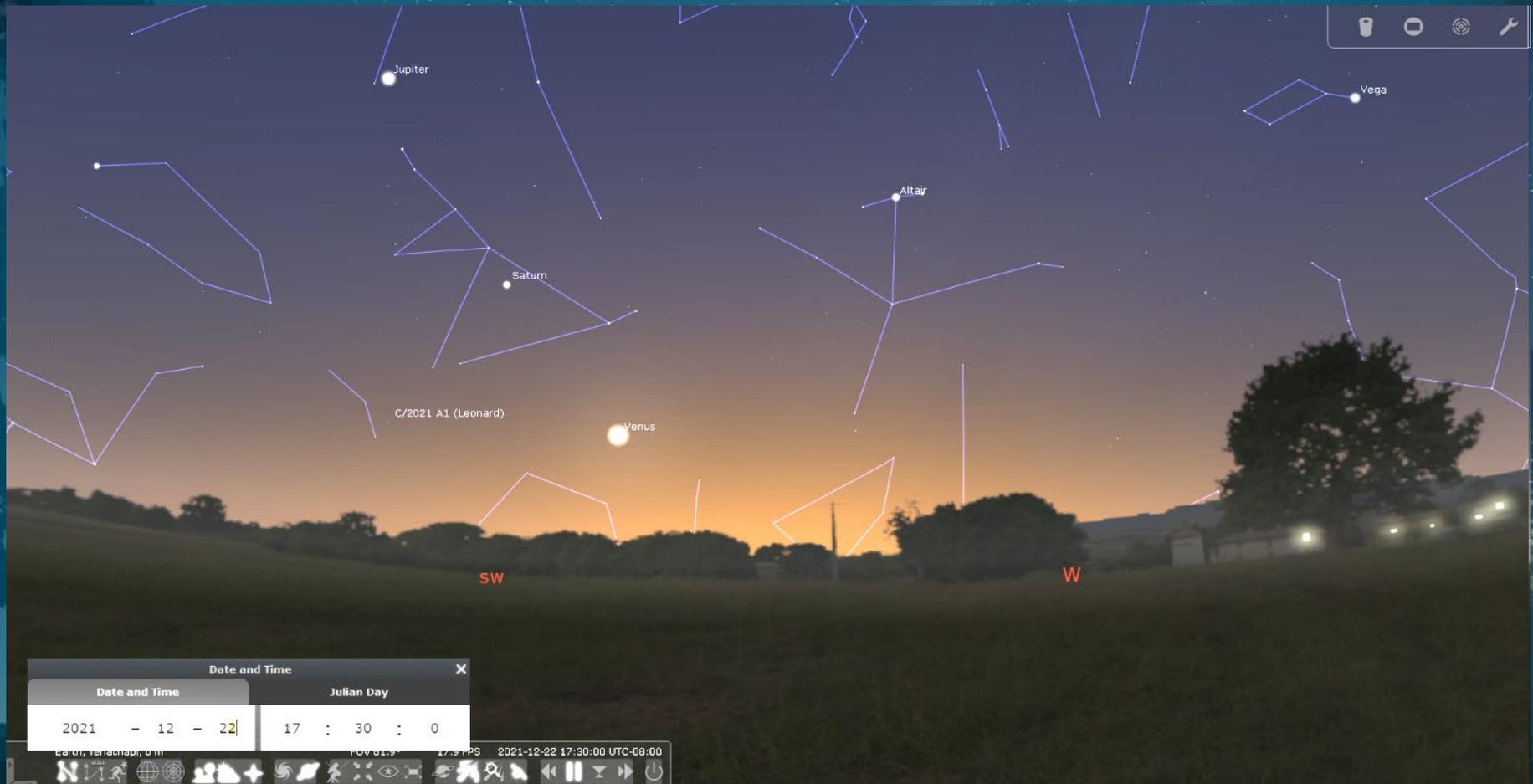
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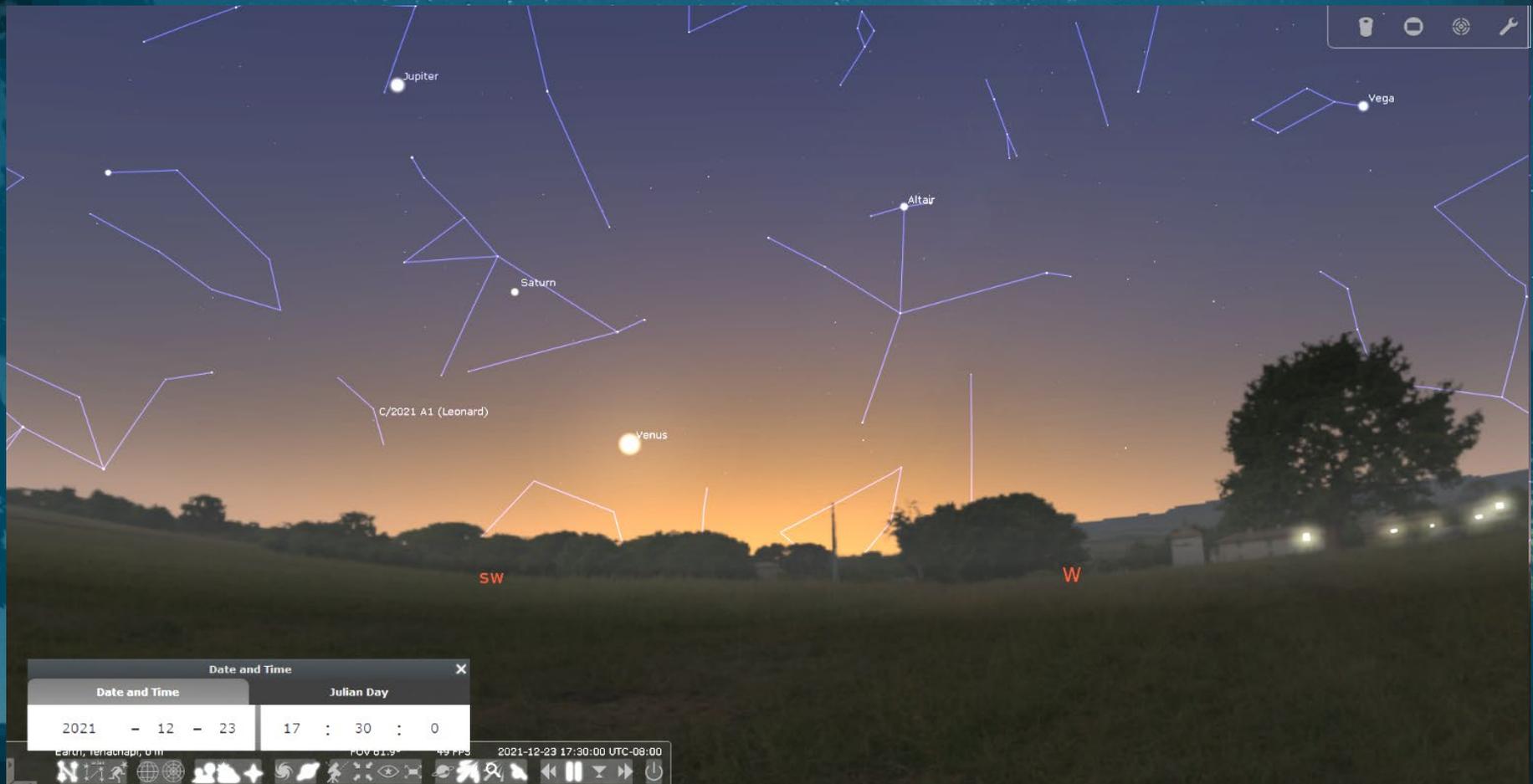
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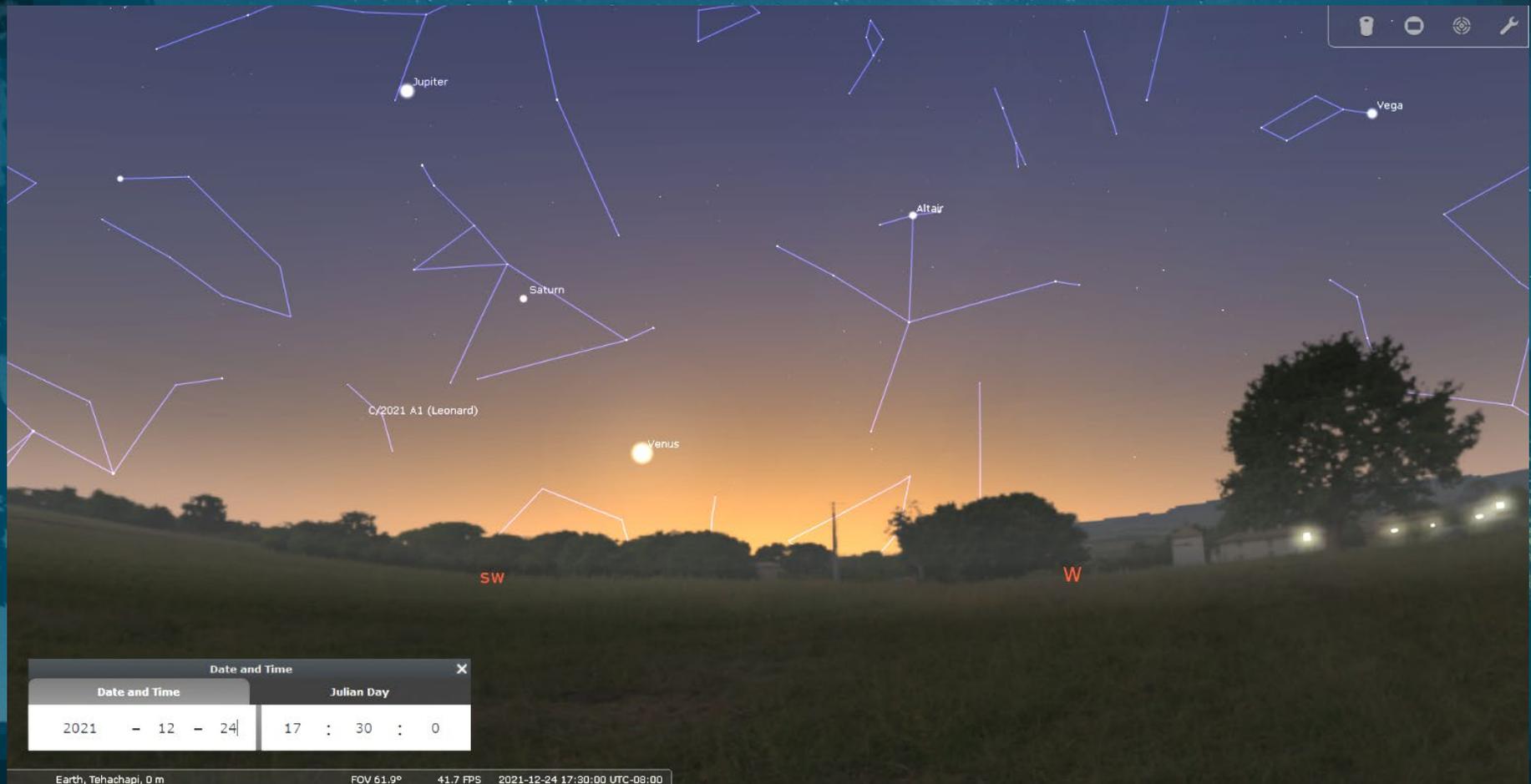
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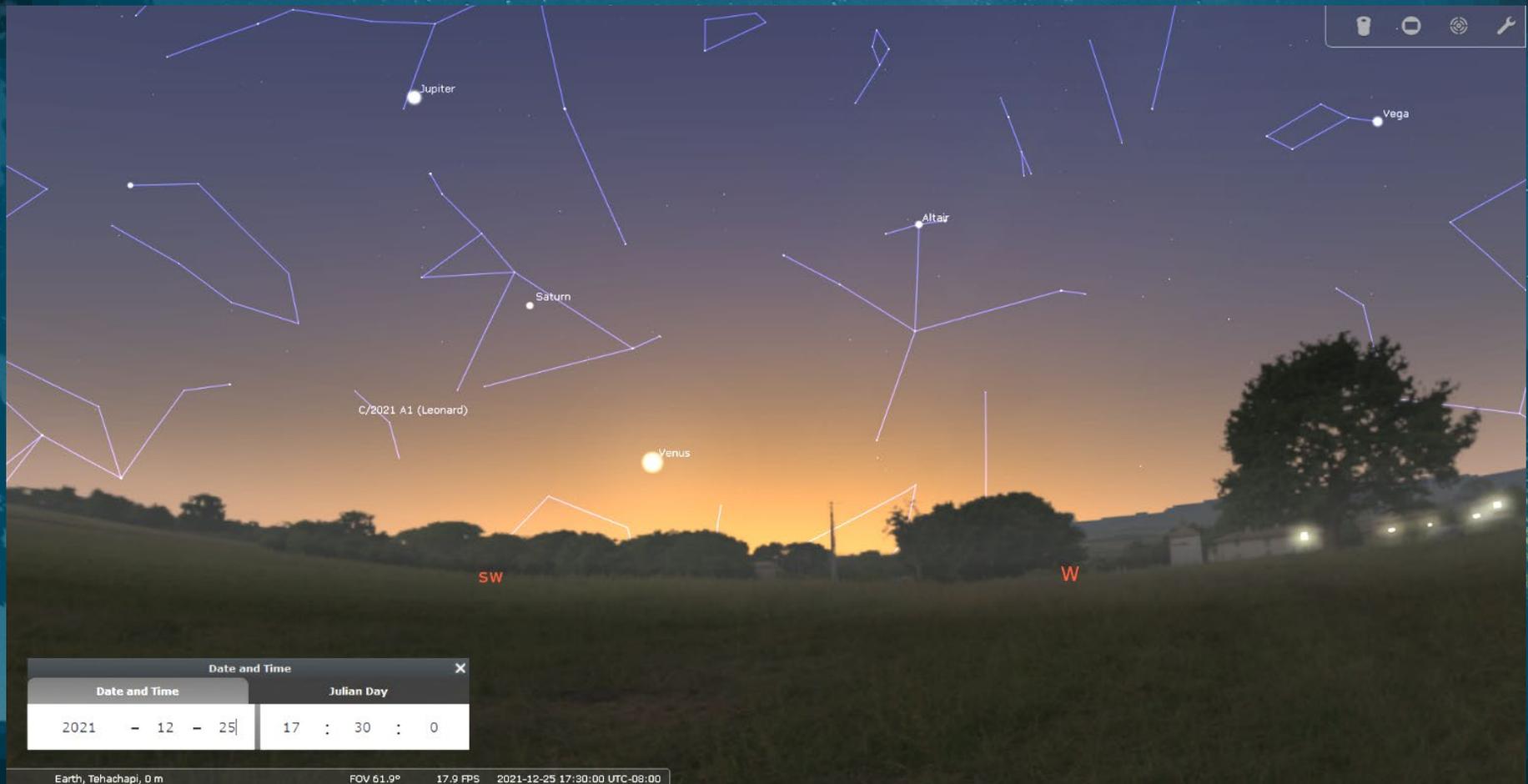
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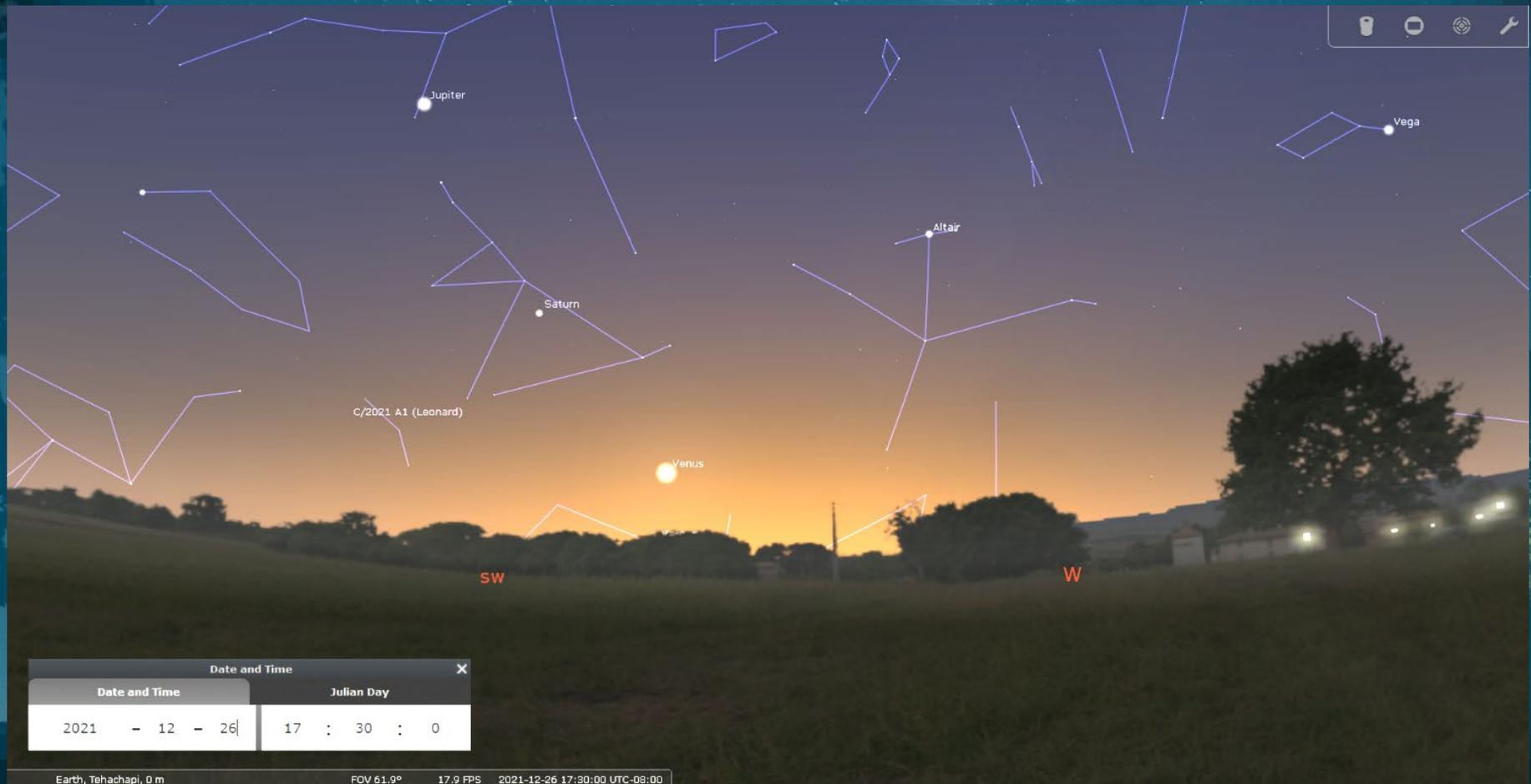
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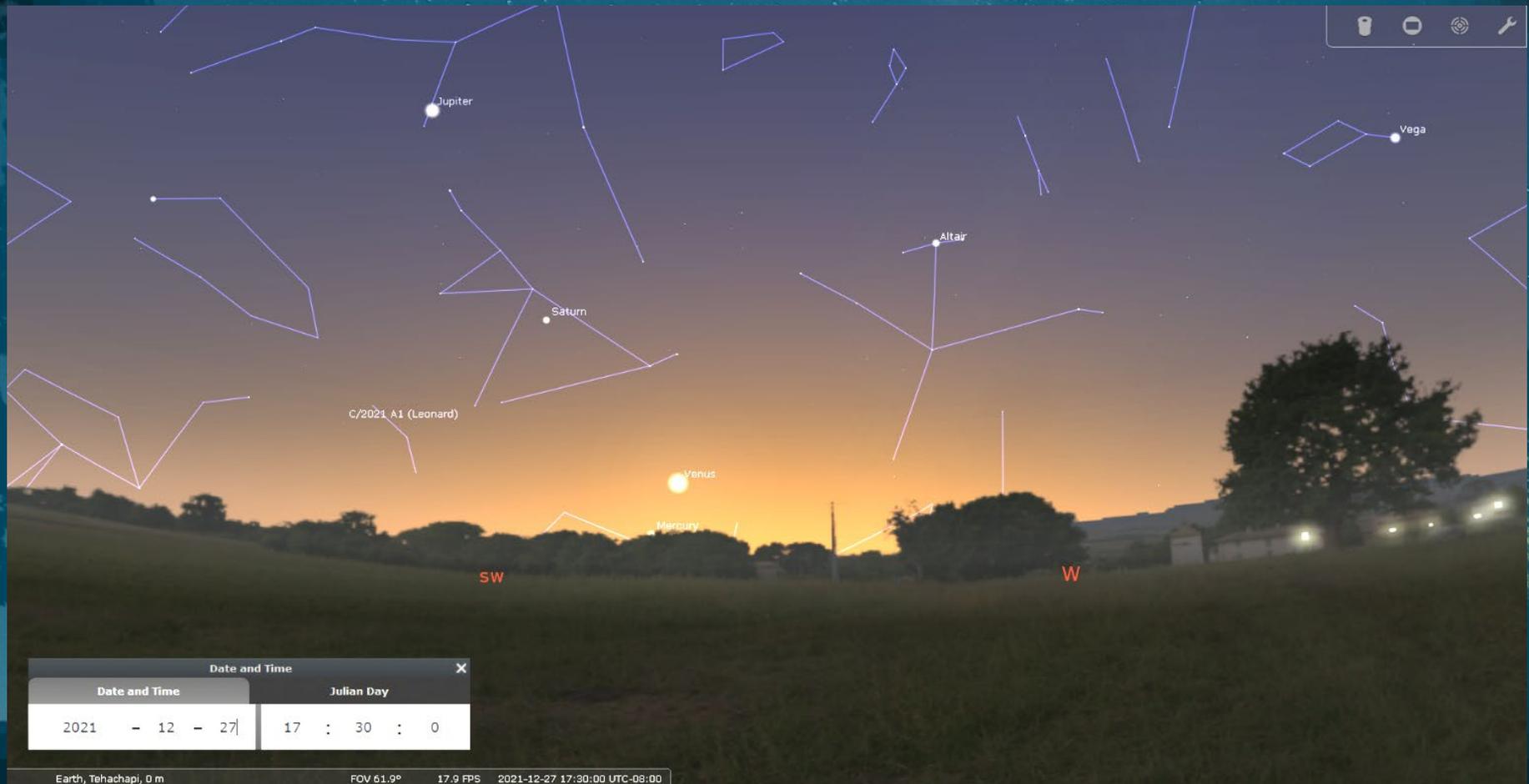
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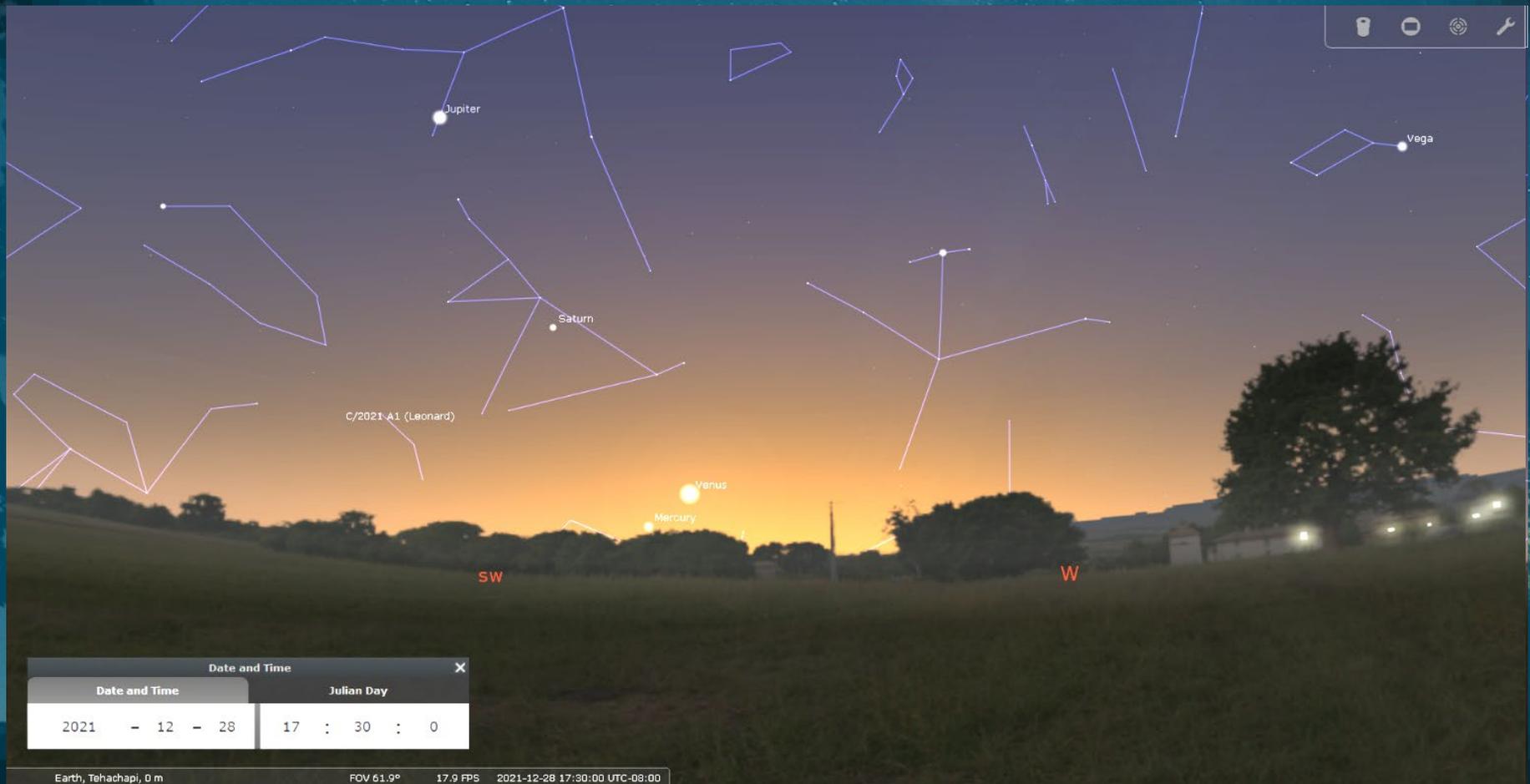
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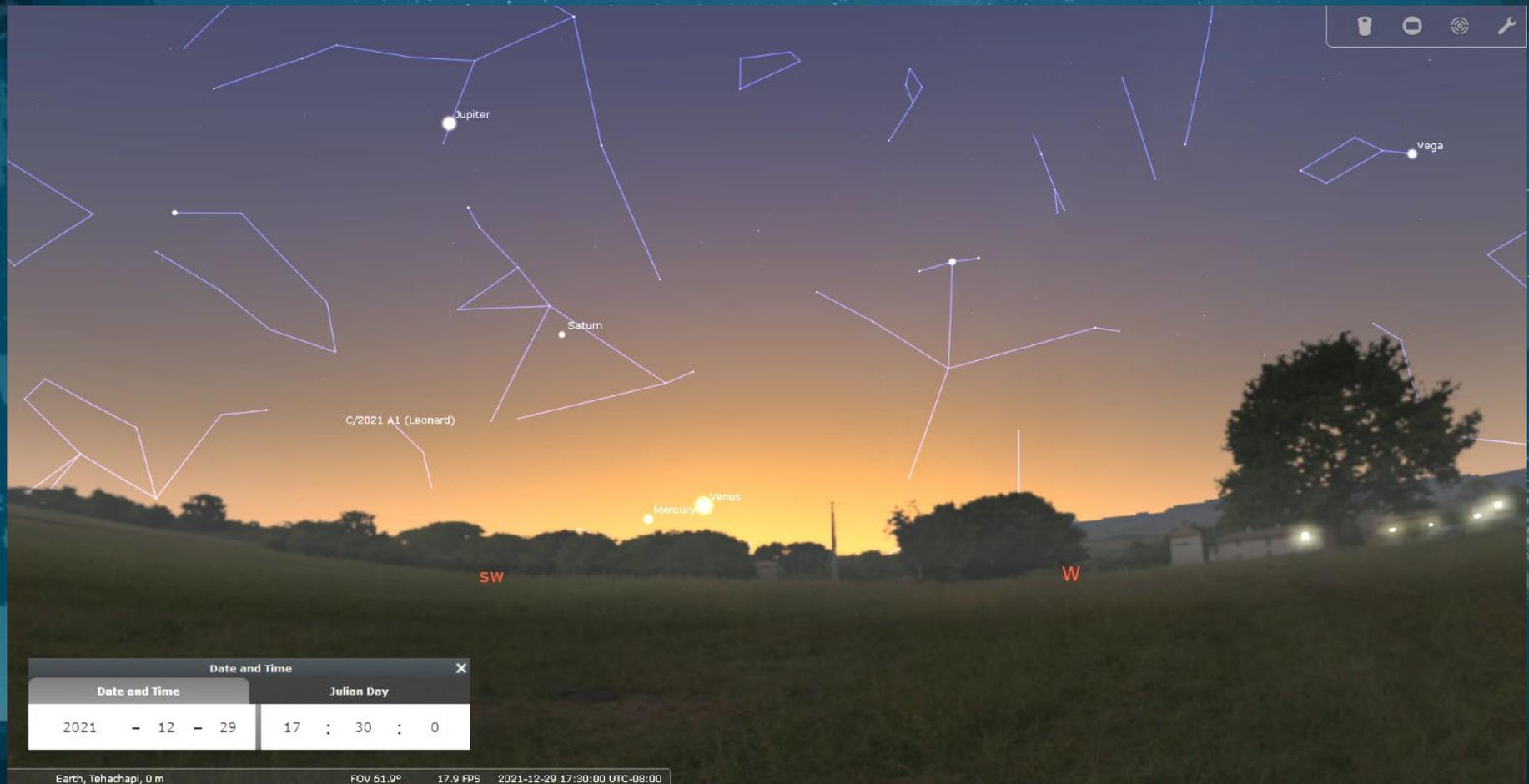
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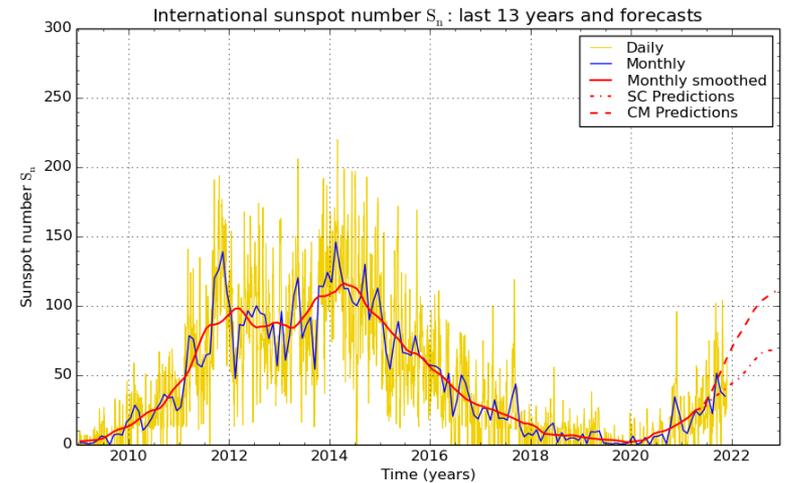
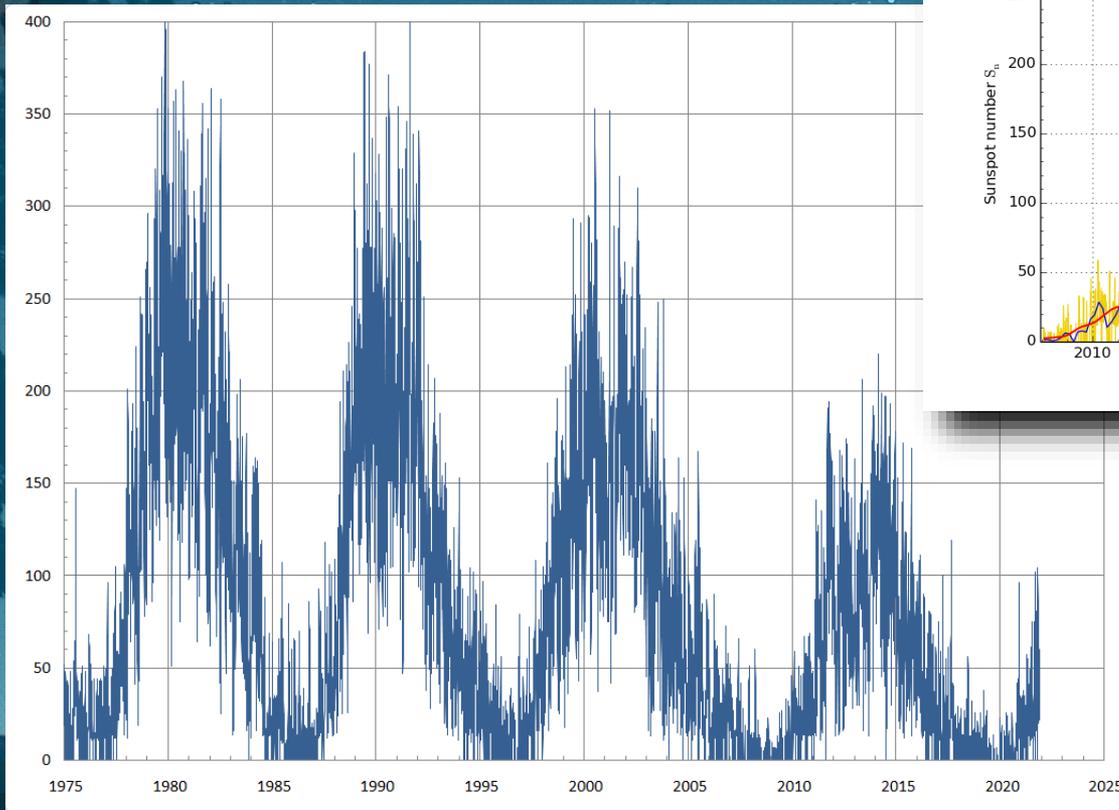
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Solar Activity

- Solar activity is picking up.
- Cycle 25 started 2020 with Solar Max expected ~ 2024 - 2025.
- Diagnostics continue to look like a repeat of cycle 24. Expect weak maximum.
- Sun's southern Hemisphere continues produce more activity than the North.

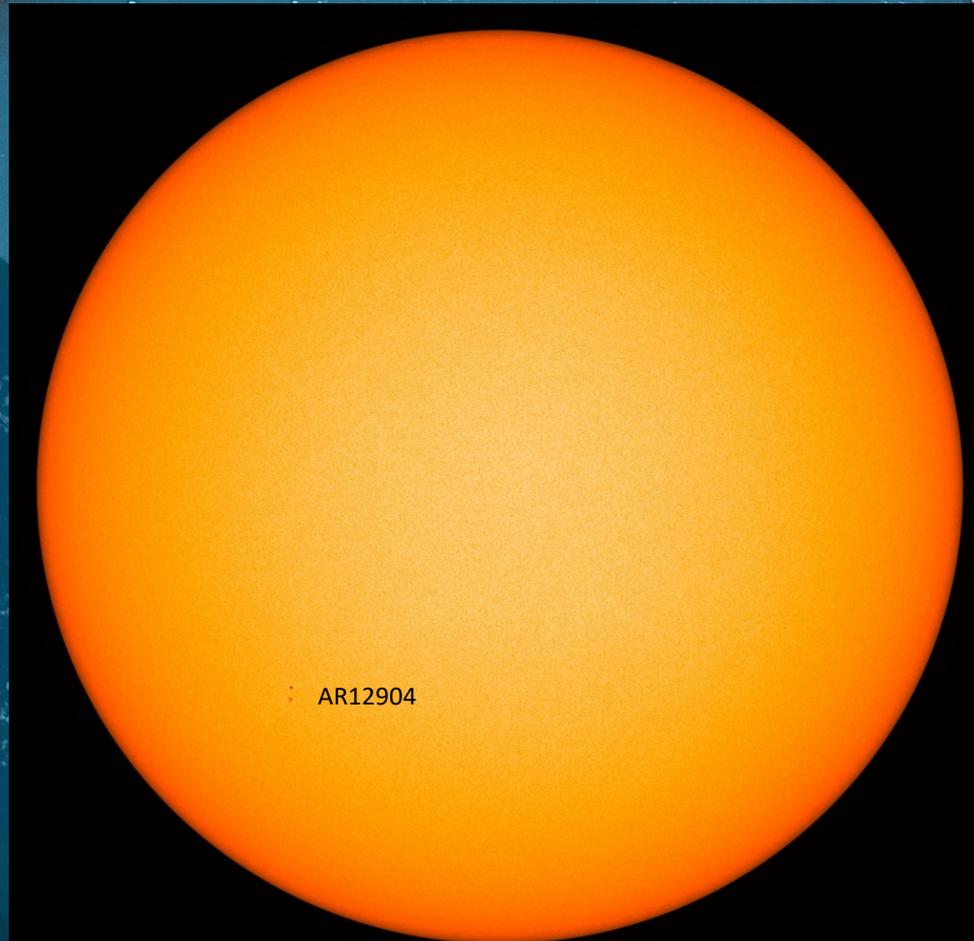


SILSO graphics (<http://sidc.be/silso>) Royal Observatory of Belgium 2021 December 1

Solar Influences Data analysis Center (SIDC)
Royal Observatory of Belgium

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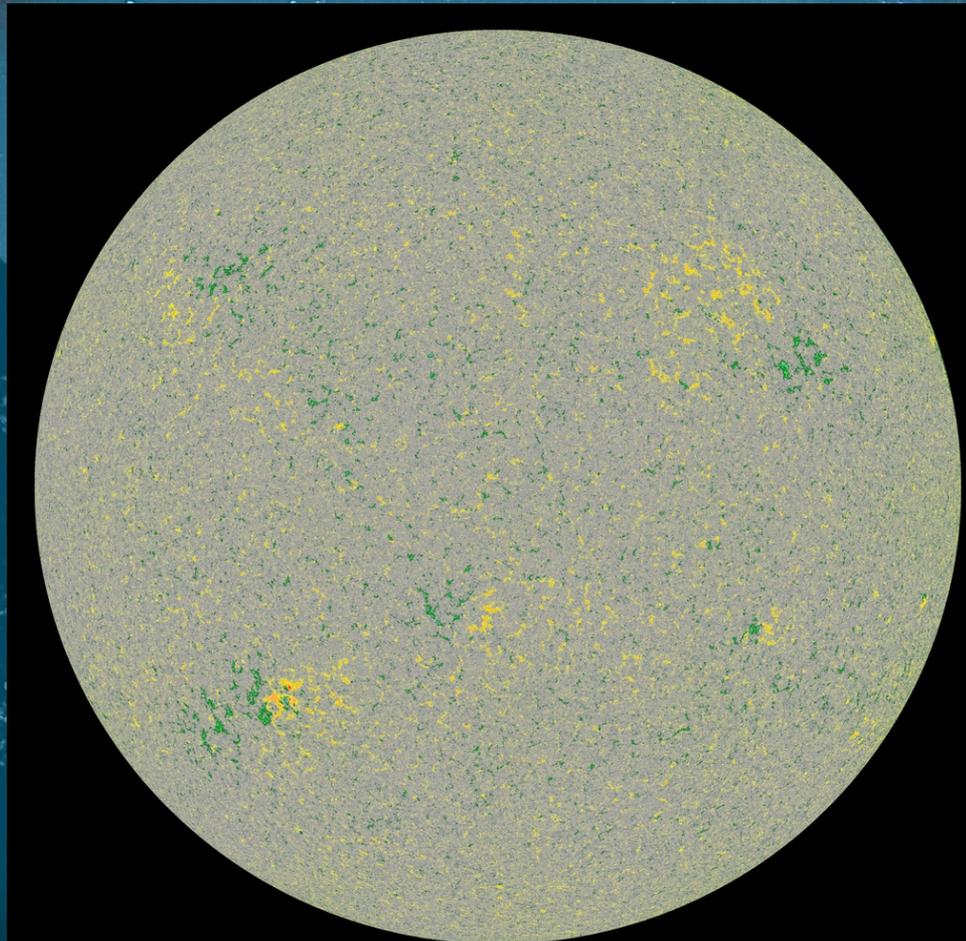


SDO (Solar Dynamics Observatory) Helioseismic and Magnetic Imager (HMI).

NASA/SDO/HMI/Intensity

Solar Activity

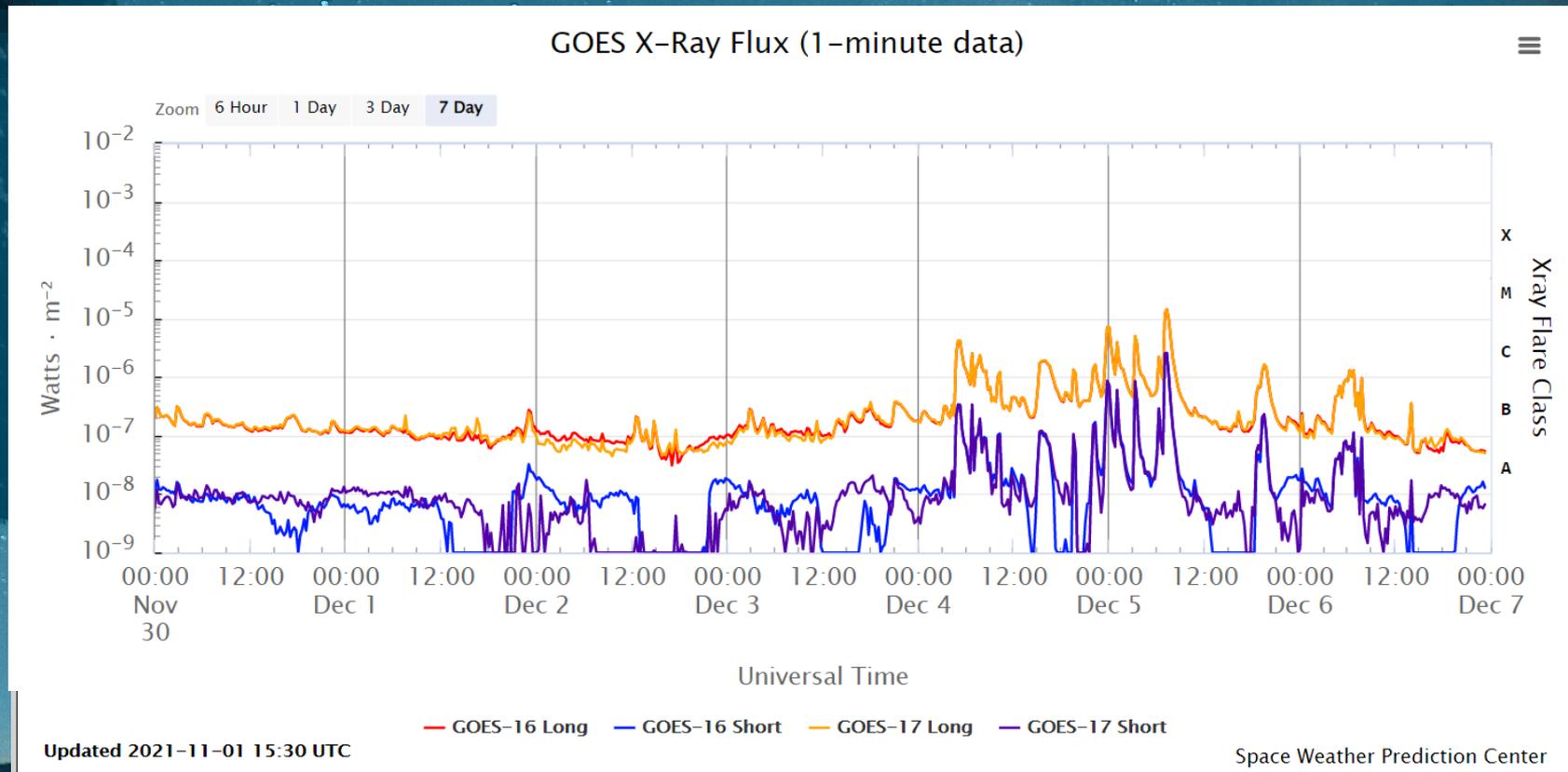
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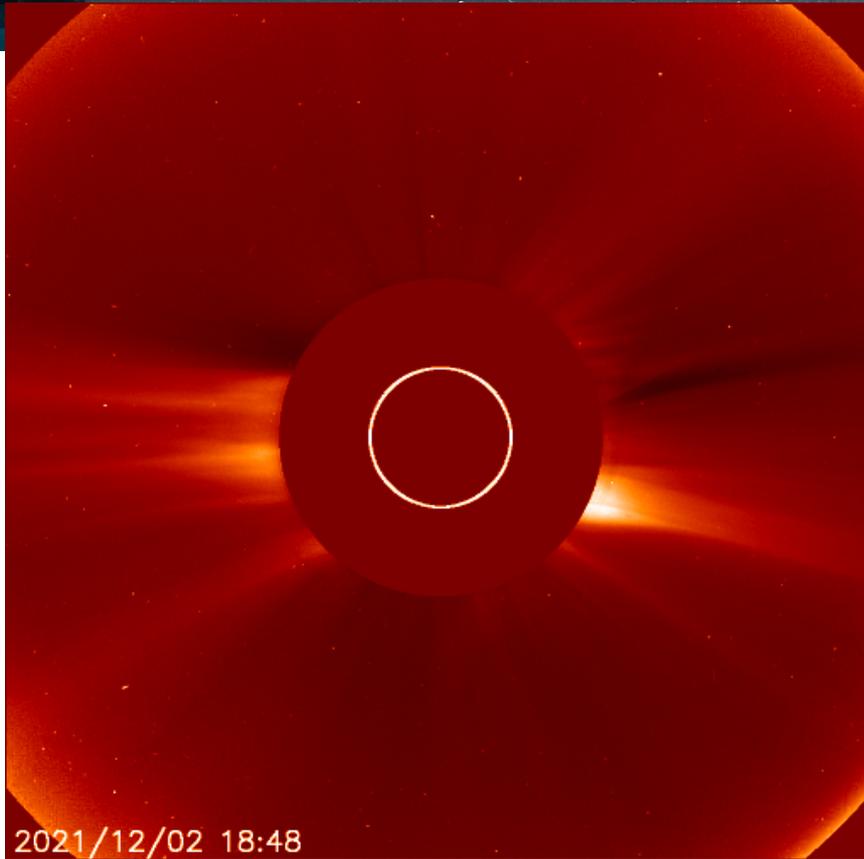
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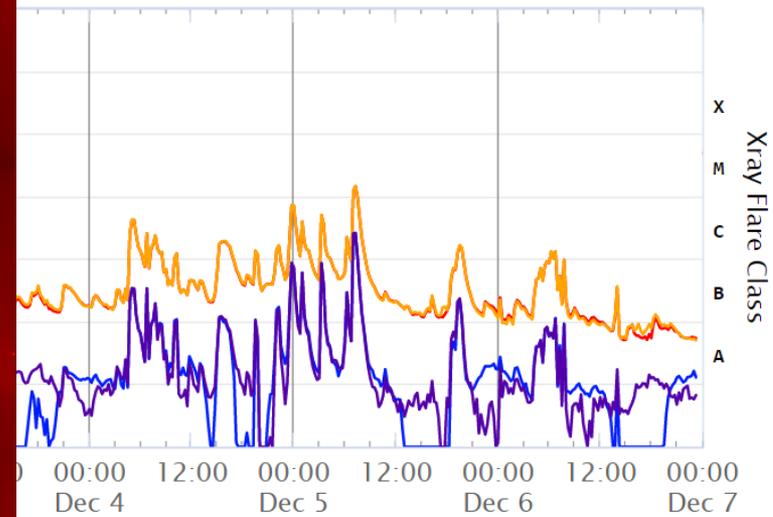


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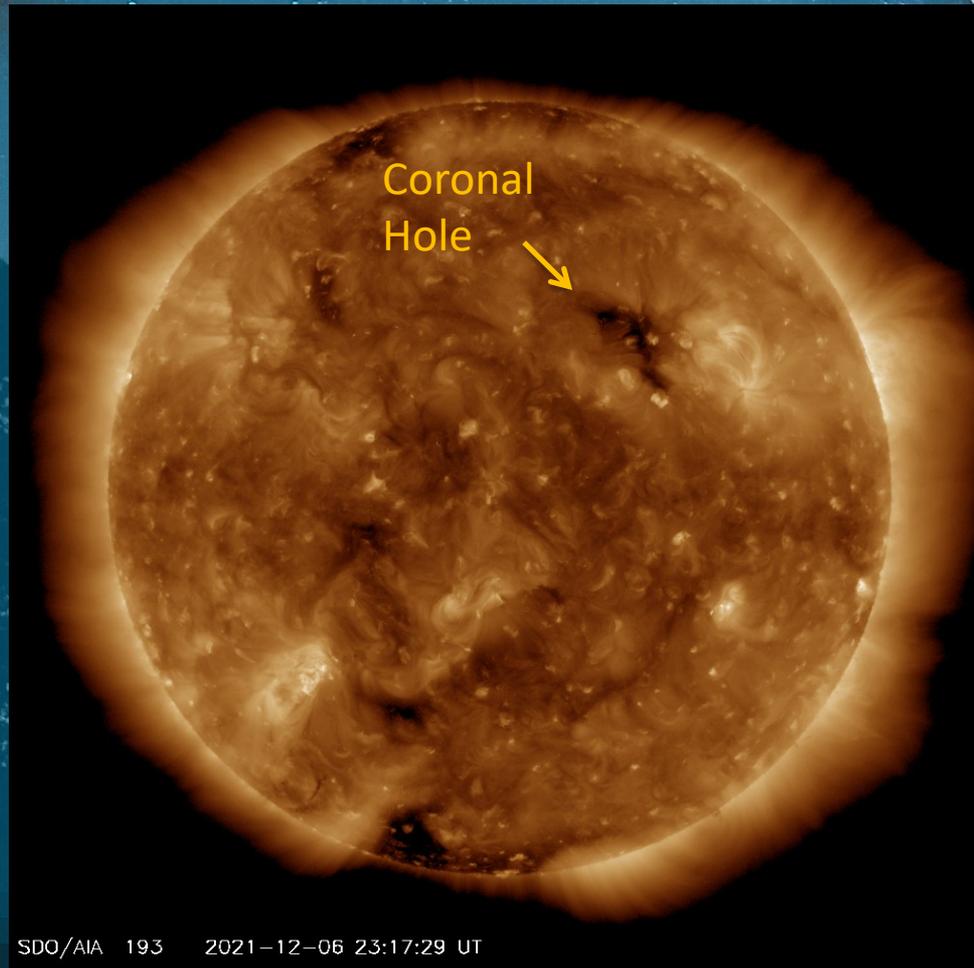
minute data)



Space Weather Prediction Center

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SDO (Solar Dynamics Observatory) Atmospheric Imaging Assembly (AIA).

The 171 Å bandpass is sensitive to the Fe XII at ~ 1,000,000 K and Fe XXIV at 20,000,000 K.

Coronal Holes are source the of the "Fast Solar Wind" at ~ 800 Km/s, about twice the speed of normal "slow Solar Wind."

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Bear Valley Springs



Astronomy Club