

# A Tour and Guide to Salem's Night Skies

Jed Rembold

August 3, 2019



- The Moon
  - Tycho
  - Copernicus
  - Sea of Tranquility
- Planets
  - Jupiter and moons
  - Saturn
  - Venus and Mars
- Deep Sky
  - Pleides
  - Orion Nebula
  - Andromeda Galaxy
  - Hercules Cluster
- Perseid Meteor Shower



- Where to find:
  - Full: highest in sky around midnight
  - New: highest in sky at noon
  - Waxing: up in early evening
  - Waning: up in early morning
- Always see basically the same side of the Moon
  - Rotates on axis at same rate it rotates around Earth
- Near-side has lots of contrast with darker lowlands and brighter highlands
- Looking along the **terminator** where light meets dark, will give the greatest sense of depth and contrast from shadows.

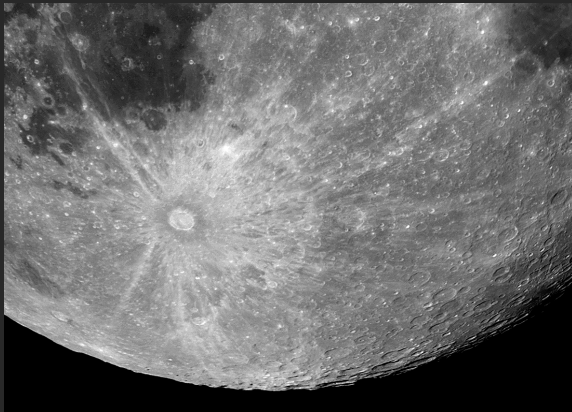
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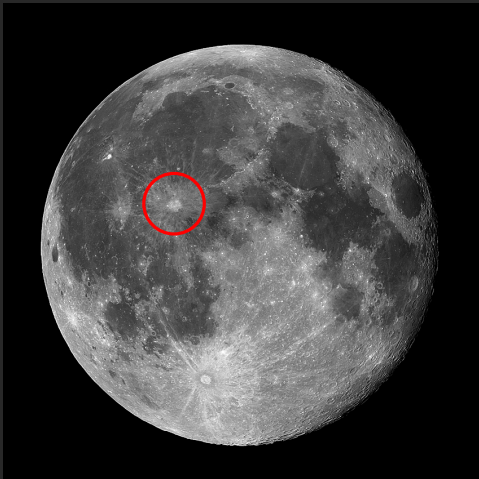


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# Sea of Tranquility



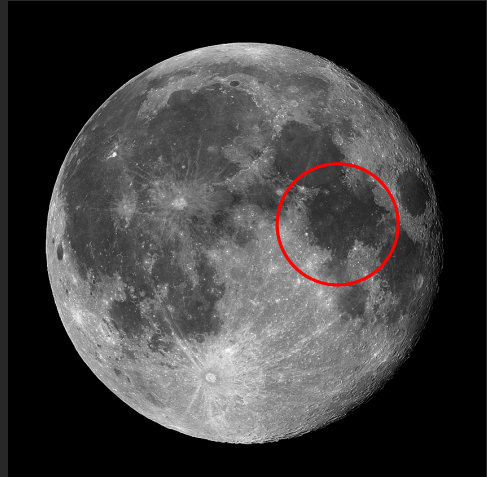
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- Lowlands expose darker rock, giving the distinct shade
- Apollo 11 landing was near the Southwest edge



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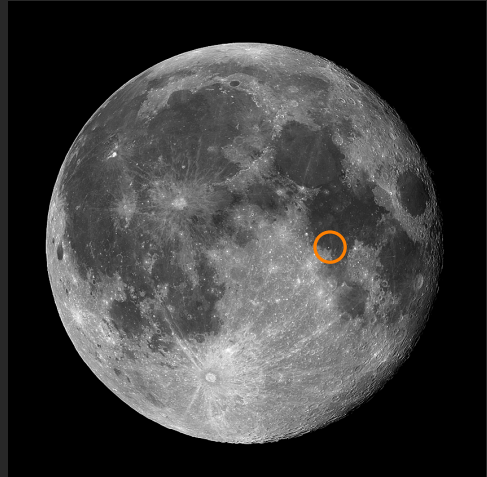
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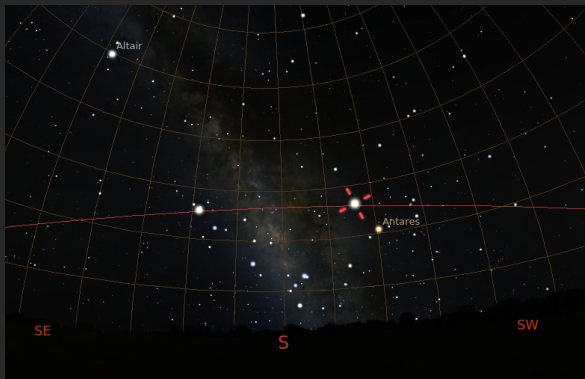


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- Largest of the planets. Will appear as a very large bright star in the sky.
- Look towards the South between 15 and 30 degrees above the horizon.
- If you see two really bright stars, Jupiter is the brighter and is the rightmost one at the moment.
- 4 moons easily visible with just binoculars
  - Io, Europa, Ganymede and Callisto
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- Mars

- Exhibits a reddish tinge
- Lies on the same ecliptic, so visible to mostly looking South
- With telescope can sometimes make out polar caps

# Andromeda Galaxy



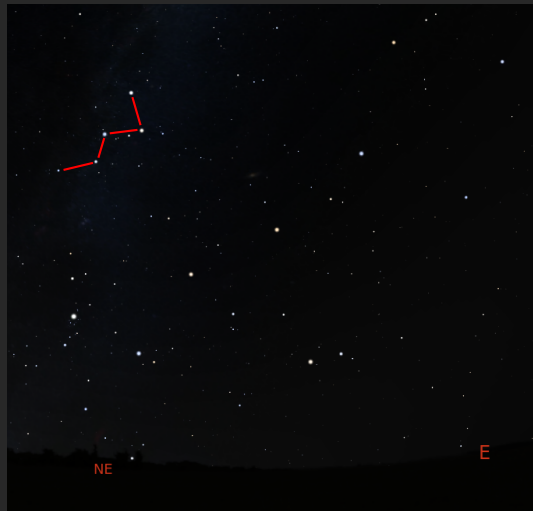
- Our nearest galactic neighbor!
- Definitely easier to spot away from light pollution
- I usually find follow a trail of constellations to help me find it:
  - Cassiopeia (the “W”)
  - Pegasus (a big square)
  - Andromeda (two “legs” attached to the square)
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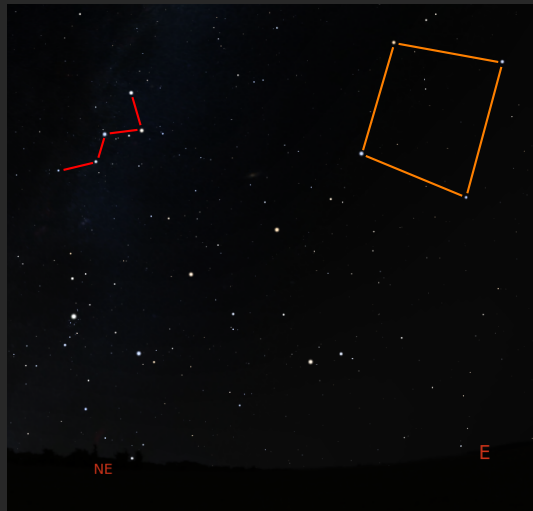
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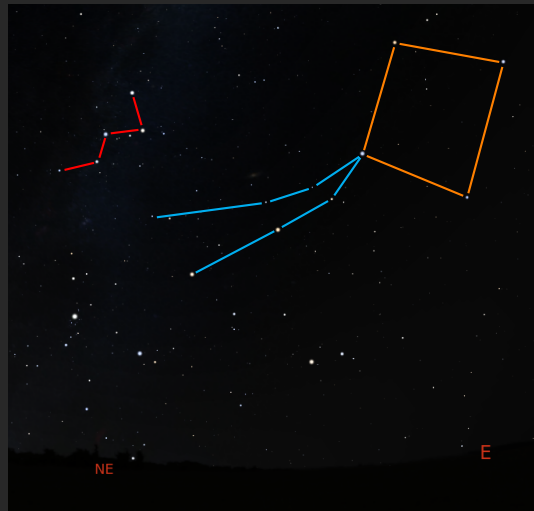
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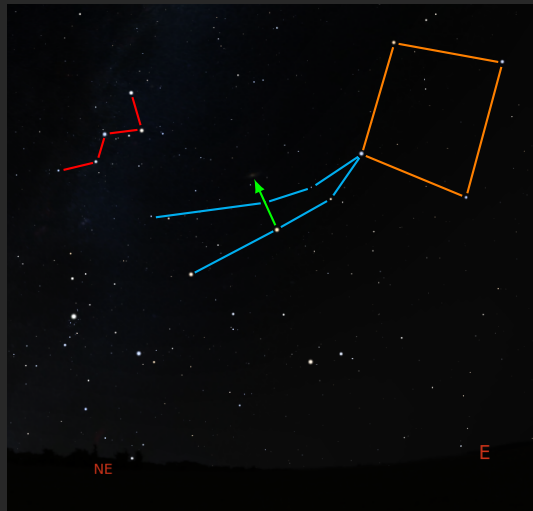
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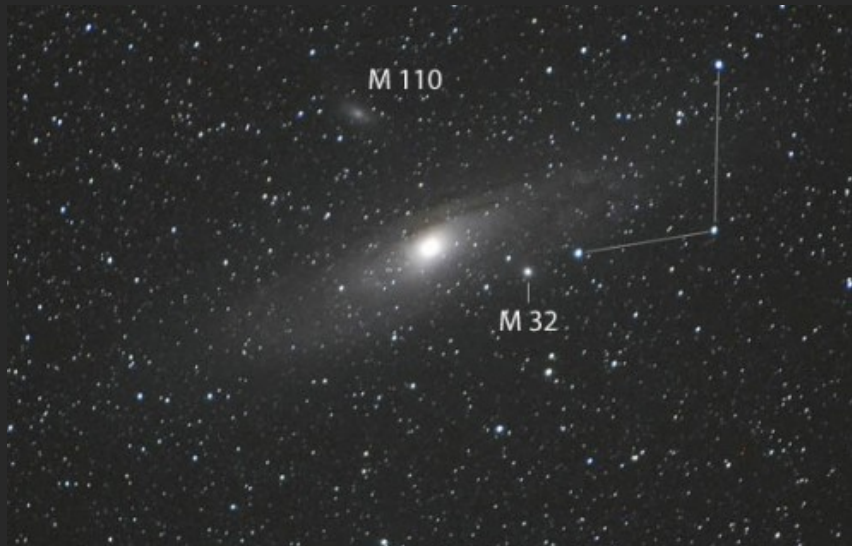
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# Andromeda thru Binoculars





Slide Body