

Library Telescope Program

- Modified Orion Starblast 4.5 Newtonian reflector telescopes based on NHAS LTP* guidelines with further unique customization.



*New Hampshire Astronomical Society Library Telescope Program

Library Telescope Program

- **Modifications:**
- Lens cap and cover lanyards
- Warning and informational stickers
- Base function improvement
- Mirror cell assembly modifications
- Battery pack added to finder scope
- “Moon cap” moon-filter modification to scope cover
- Zoom lens eyepiece

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• Modifications- Mirror Cell Assembly and Backplate



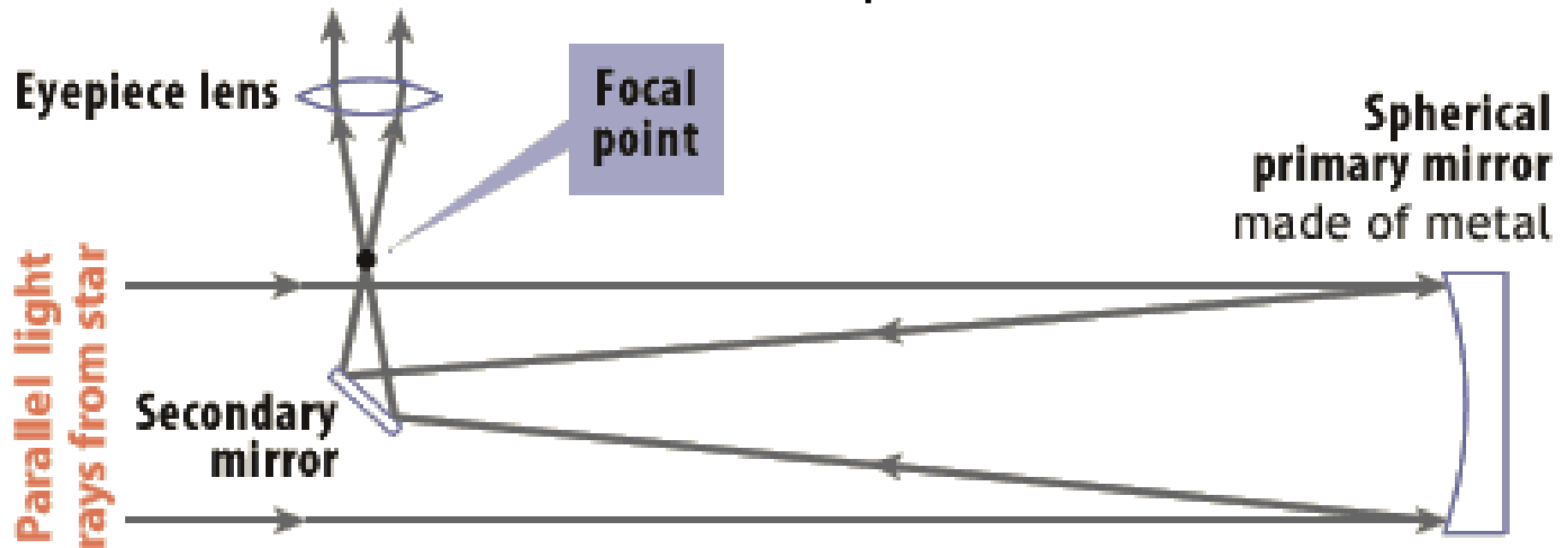
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- Modifications- Scope base/mount improvement



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- Newtonian Reflector Telescope



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- Equatorial and Dobsonian Mounts



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- **Telescope Checkout List**
- **NEVER EVER EVER view the Sun!!!!!!!!!!!!!!!!!!!!!!**
- Watch NHAS video “NHAS-LTP-Care and Maintenance”
- Proper transport- Assistant to hold, seatbelt, or both
- Do not remove caps by pulling on lanyards
- Zoom eyepiece instructions...hold by base, start at lowest magnification
- Temperature considerations...allow scope to adjust to ambient temperature
- Altitude adjustment
- Finder scope operation. Try not to adjust...return to Library if possible.
- Proper carry and securing (with seatbelt...ask if unsure).
- DO NOT attempt to clean mirrors. Eyepiece lens ONLY if ABSOLUTELY necessary (using provided cleaning “pen”).
- Do not disassemble any portion of the telescope.
- Please let us know if you have any questions, problems, or issues with the scope or its use

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• Cleaning the mirror (baby's first bath)

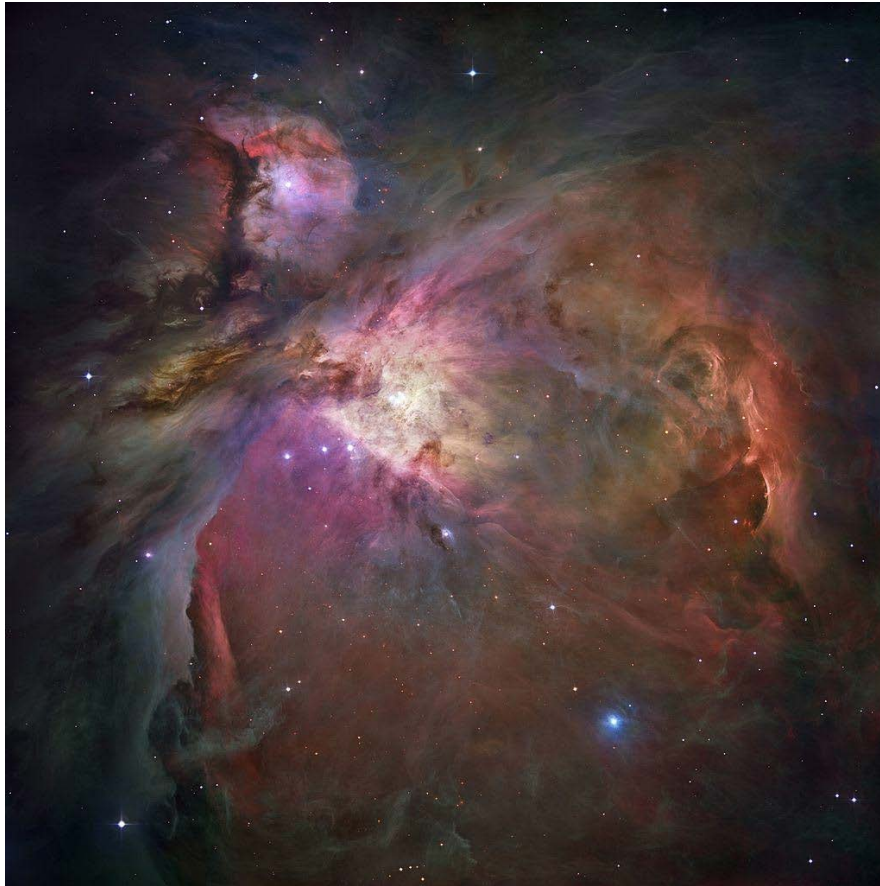


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- **Using the telescope:**
- **NEVER EVER EVER view the Sun!!!!!!!!!!!!!!!!!!!!!!!!!!!!**
- Using observation, star charts, computer star charts (online and dedicated), smartphone apps or other aids locate the object you wish to observe.
- Use the finder scope to point towards the object (set at dimmest setting comparable to brightness of object to be viewed).
- With the zoom set at lowest magnification bring field into focus and locate object in scope.
- Zoom in to higher magnification to observe (hold base of zoom lens). Refocus as necessary.
- Sometimes objects appear “better” at lower magnification.

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- **Objects to observe-**
- Orion Nebula (M42)
- Betelgeuse (red supergiant)



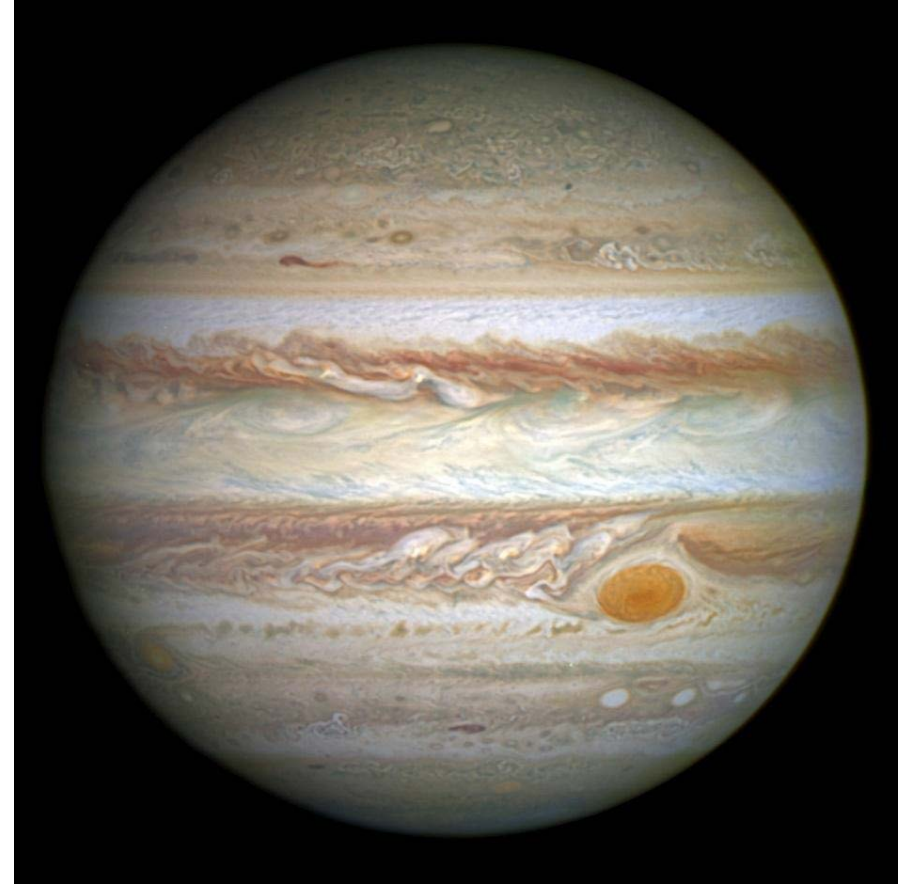
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- **Objects to observe-**
- Jupiter
-



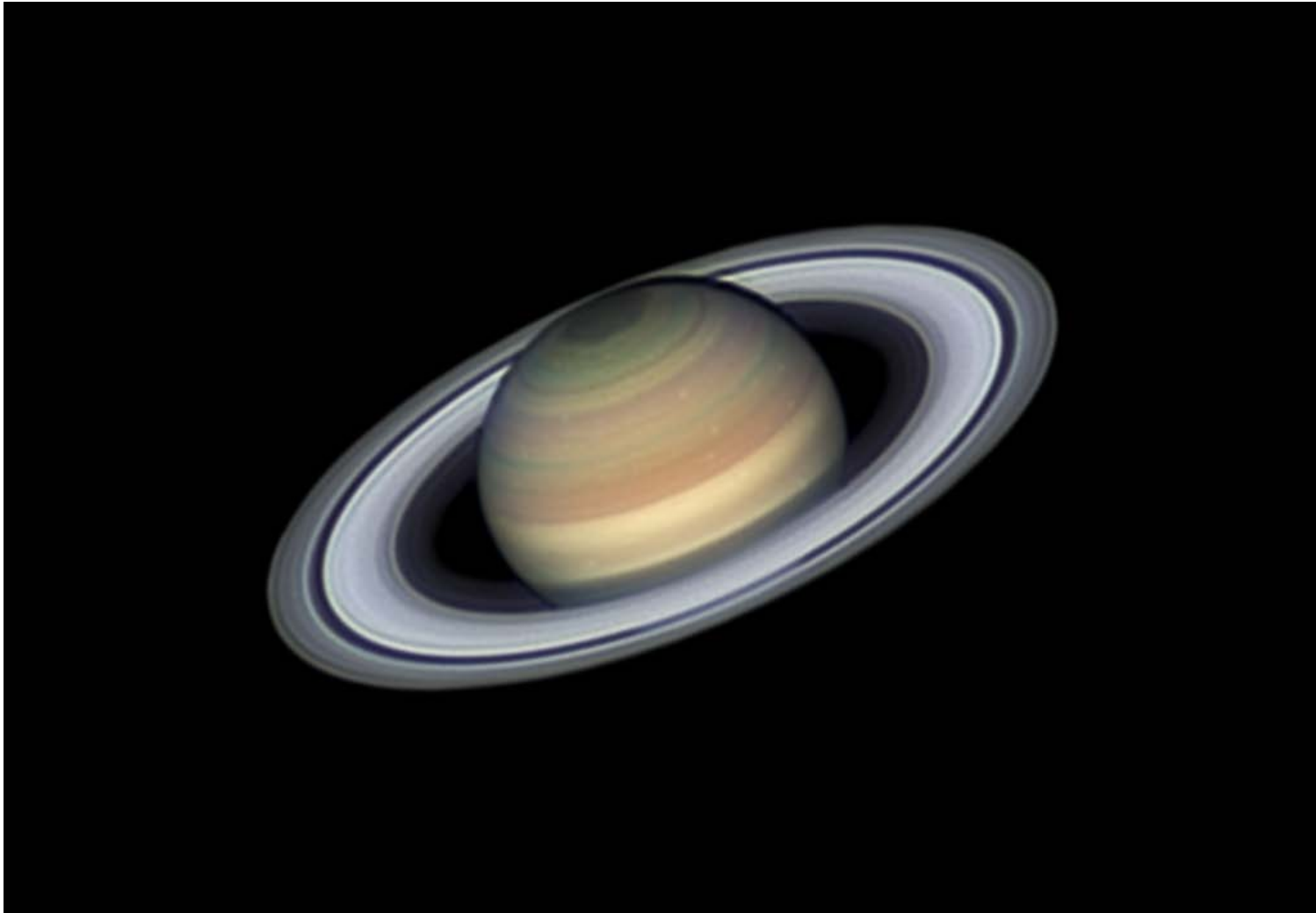
Gunnison Valley Observatory 30" main telescope



Hubble image

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- **Objects to observe-**
- Saturn
-



Hubble image

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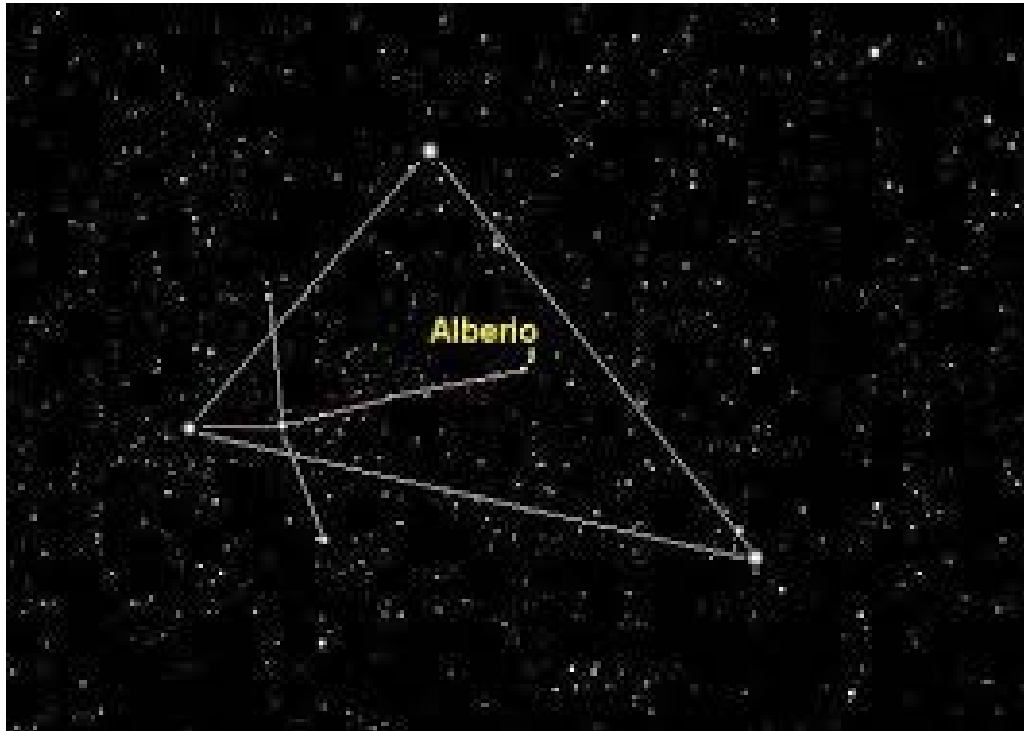
- **Objects to observe-**
- The Moon



Gunnison Valley Observatory 30" main telescope

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- **Objects to observe-**
- Alberio (binary star)
- Deneb (blue supergiant)
-

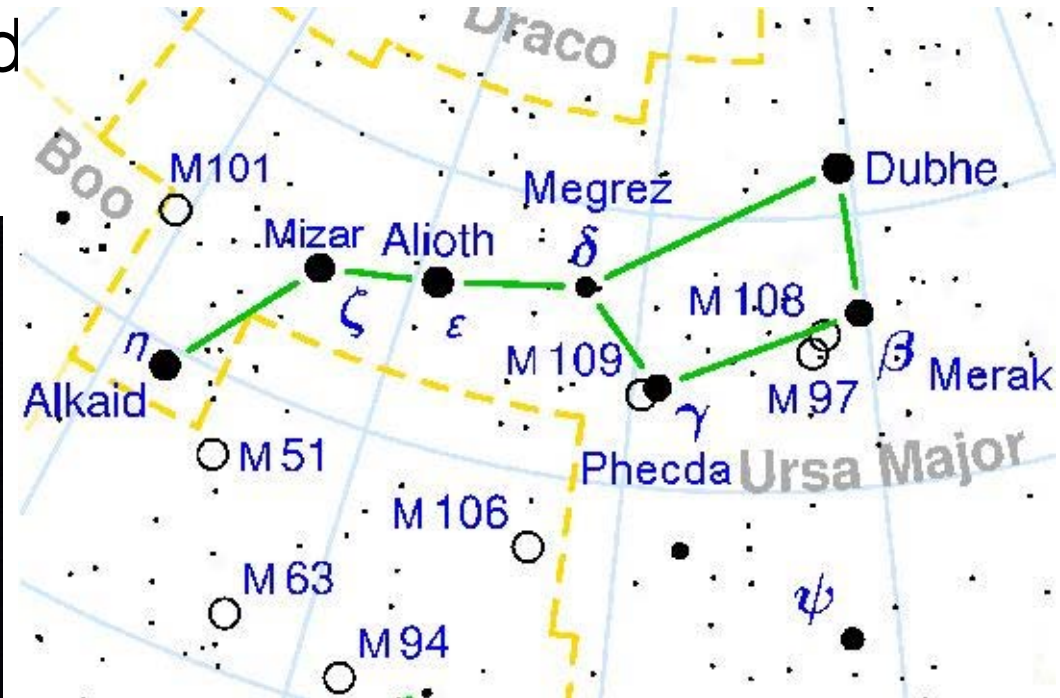
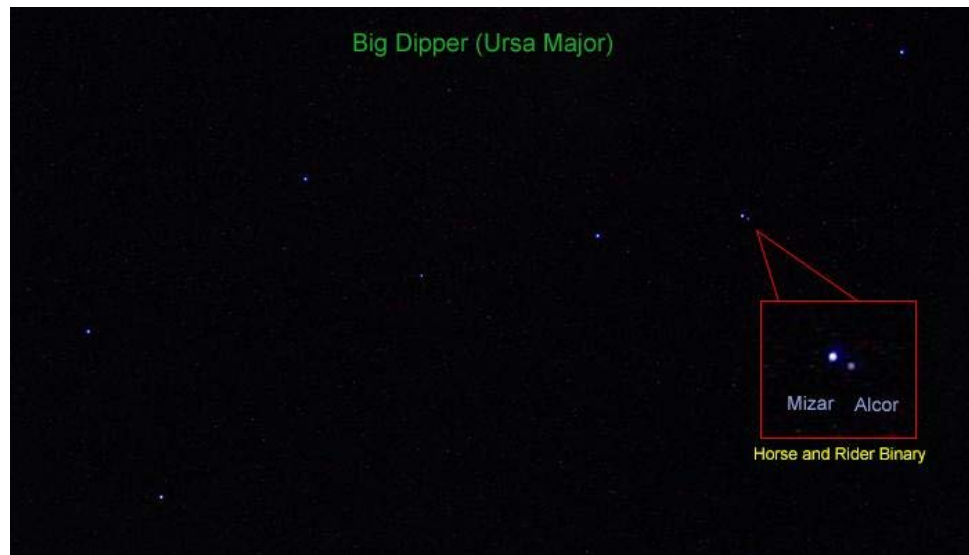


Constellation Cygnus



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- **Objects to observe-**
- Multiple star systems like Mizar (Quad system) and Alcor (binary system)

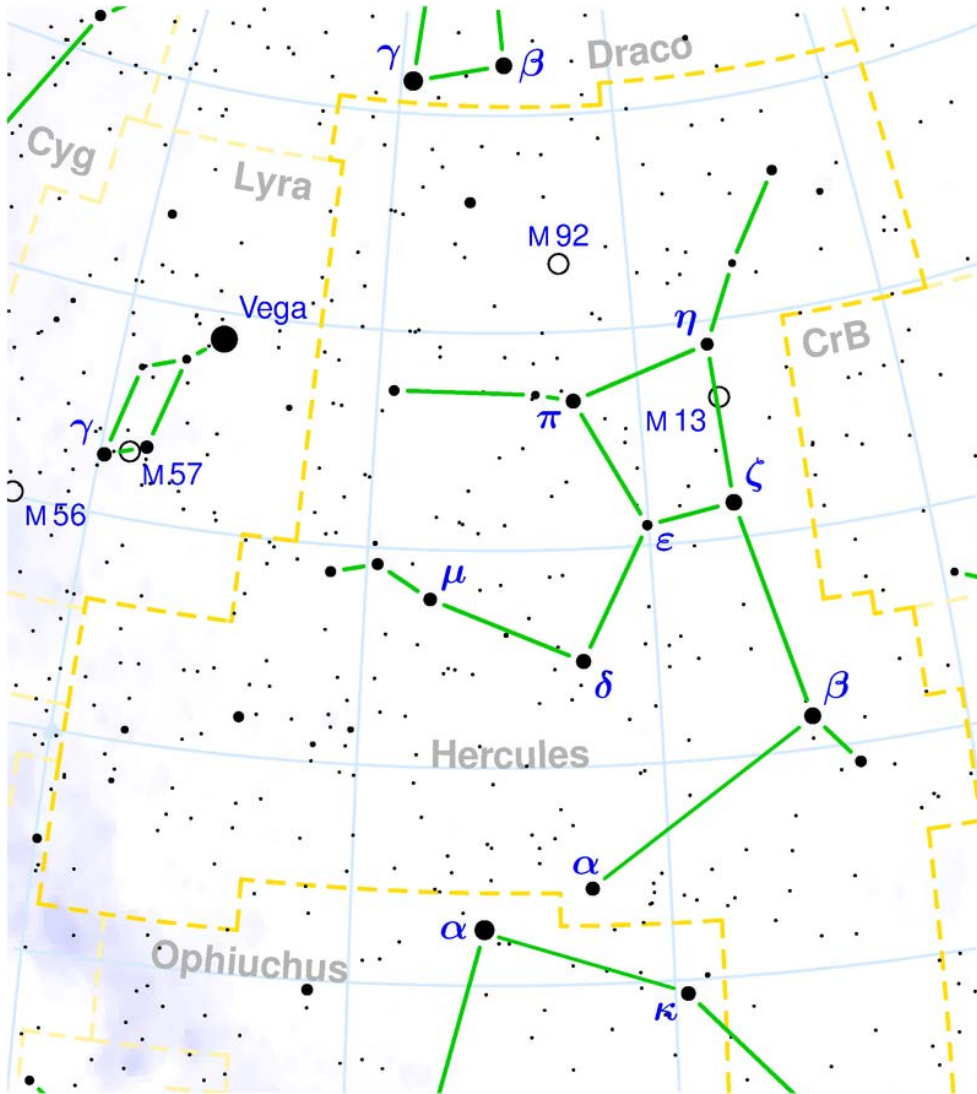


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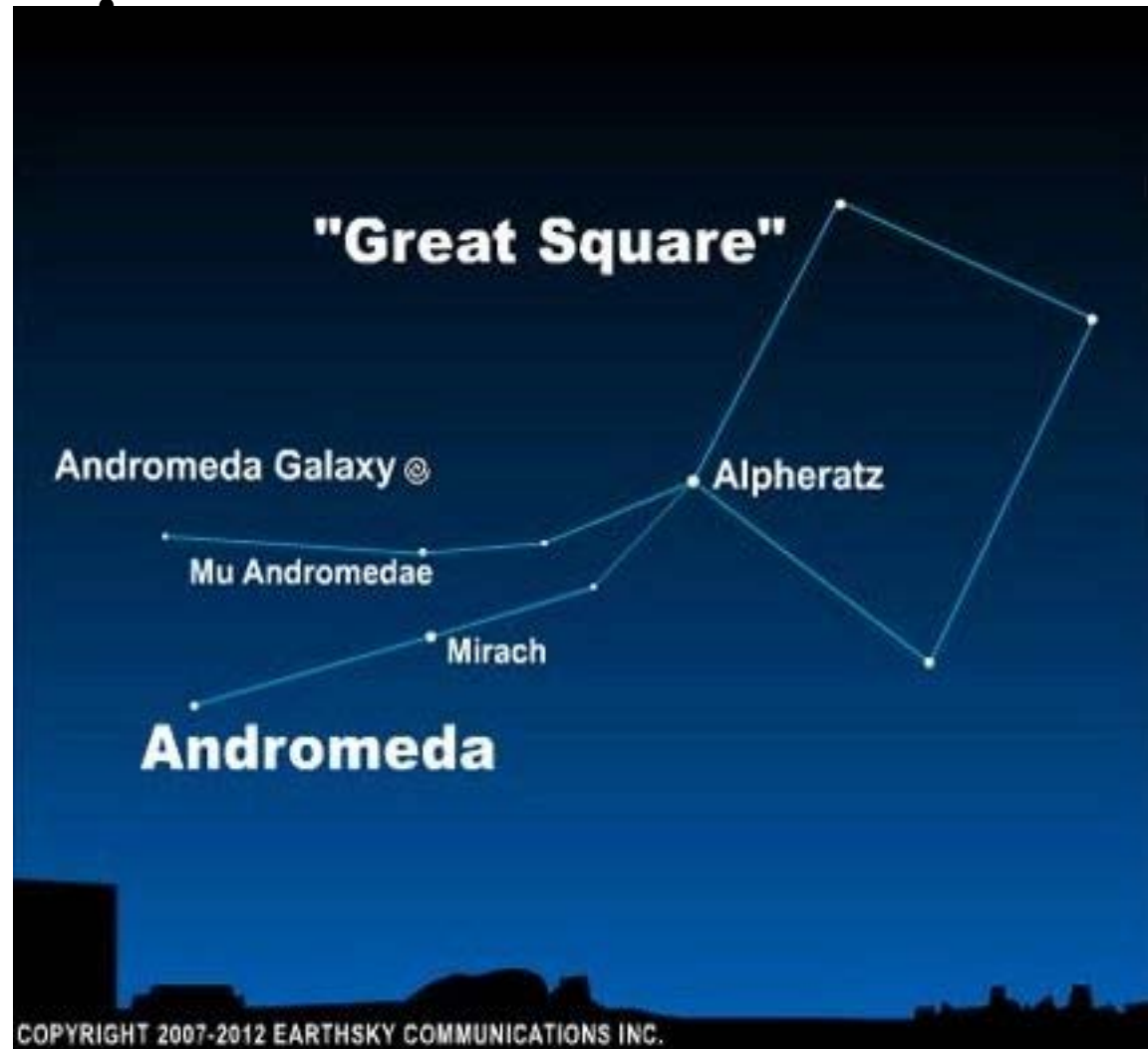
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- **Objects to observe-**
- **Globular Clusters (M13)**



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- **Objects to observe-** Andromeda Galaxy (M31)

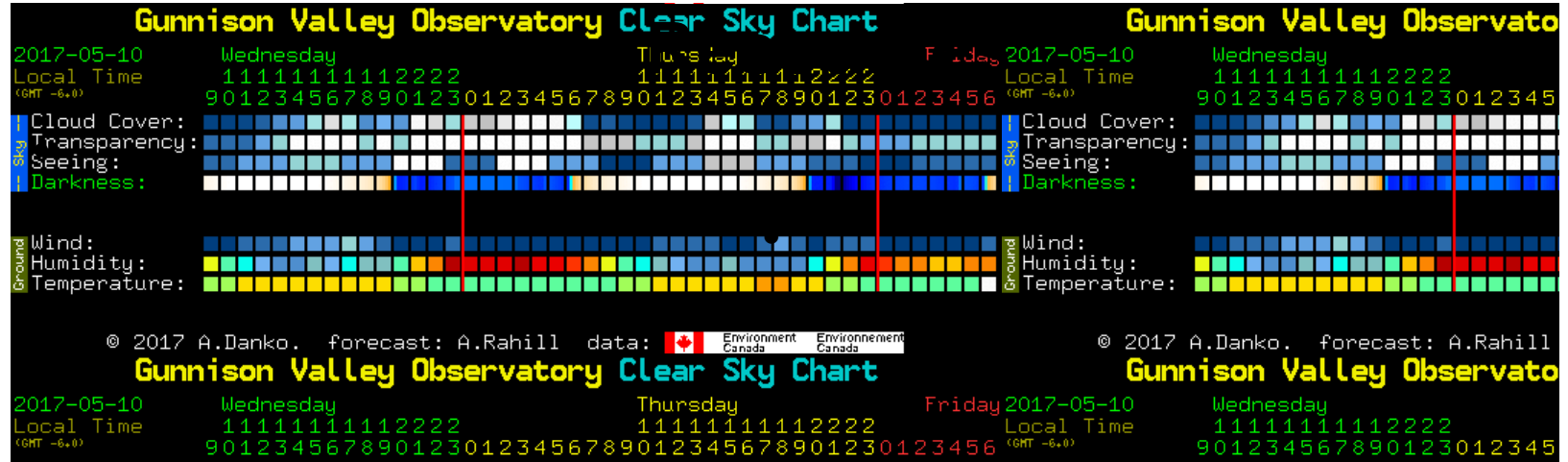


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• Astronomy Resources

- Online/print- Sky and Telescope, Astronomy Magazine, Universe Today, NHAS- <http://www.nhastro.com>
- Apps- “Heavens Above”, etc.
- GC Library- LTP, books, computer access, “Starry Night” software, LTP viewing sessions.
- Gunnison Valley Observatory- Fridays and Saturday evenings starting June 9th.
- Black Canyon Astronomical Society- Black Canyon “star parties”.
- Online star charts- <https://in-the-sky.org/skymap.php>
- (Gunnison coordinates: 38.5458° N, 106.9253° W)

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<http://www.cleardarksky.com/c/GnsnVlyObCOkey.html?1>

Gunnison Valley Observatory Clear Sky Chart
Access via NHAS home page

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