

Learning the Night Sky

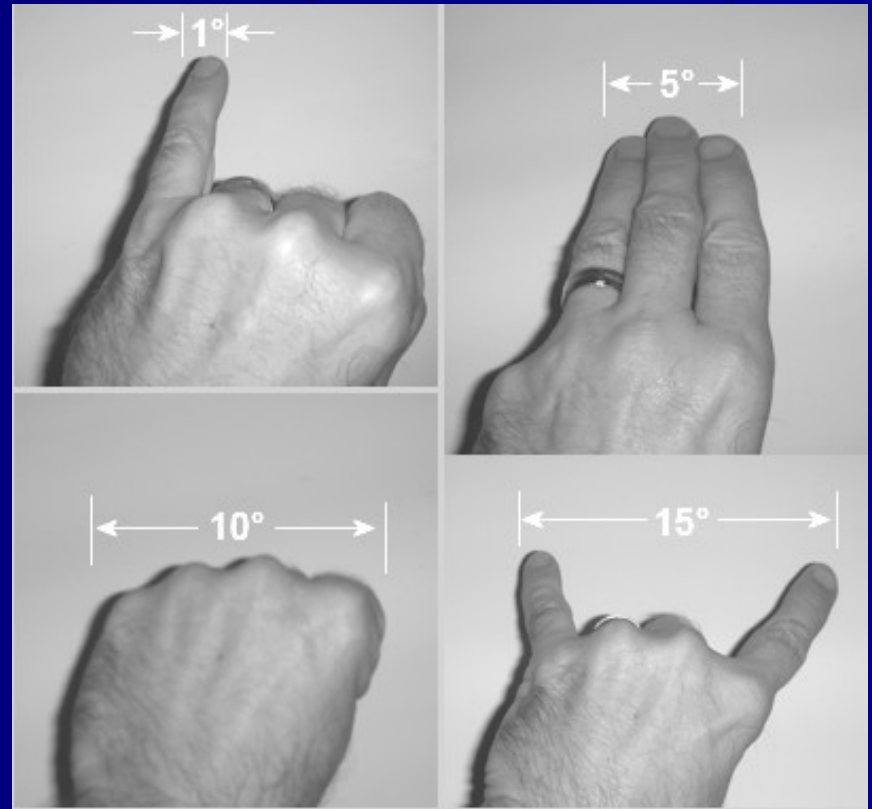
III. How Big is it?

IV. The Constellations

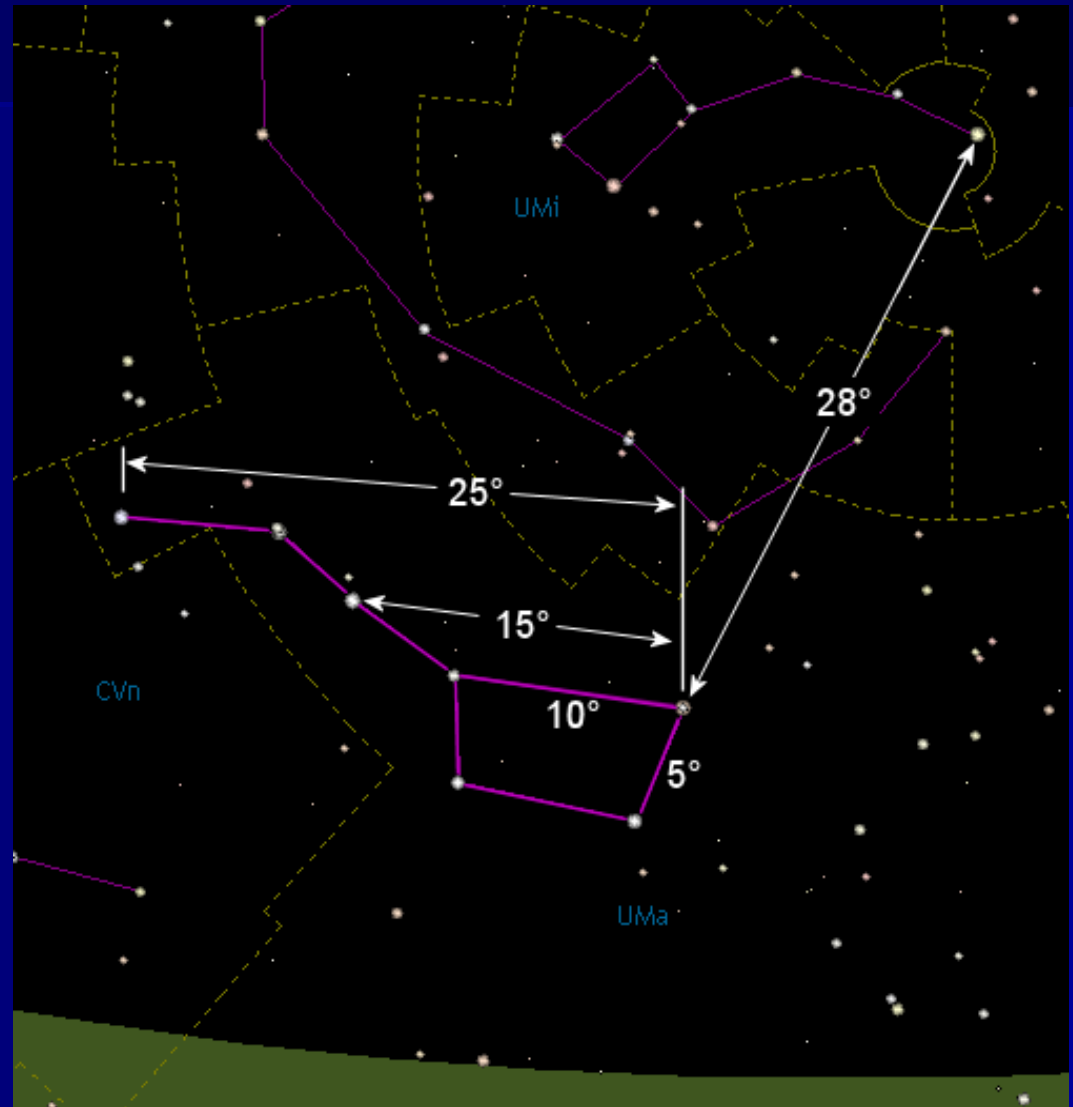
V. Books and References

How Big is...

- Relating Figures on a Map to the Sky
- Size in Degrees
- Use your hand
- At arms' length



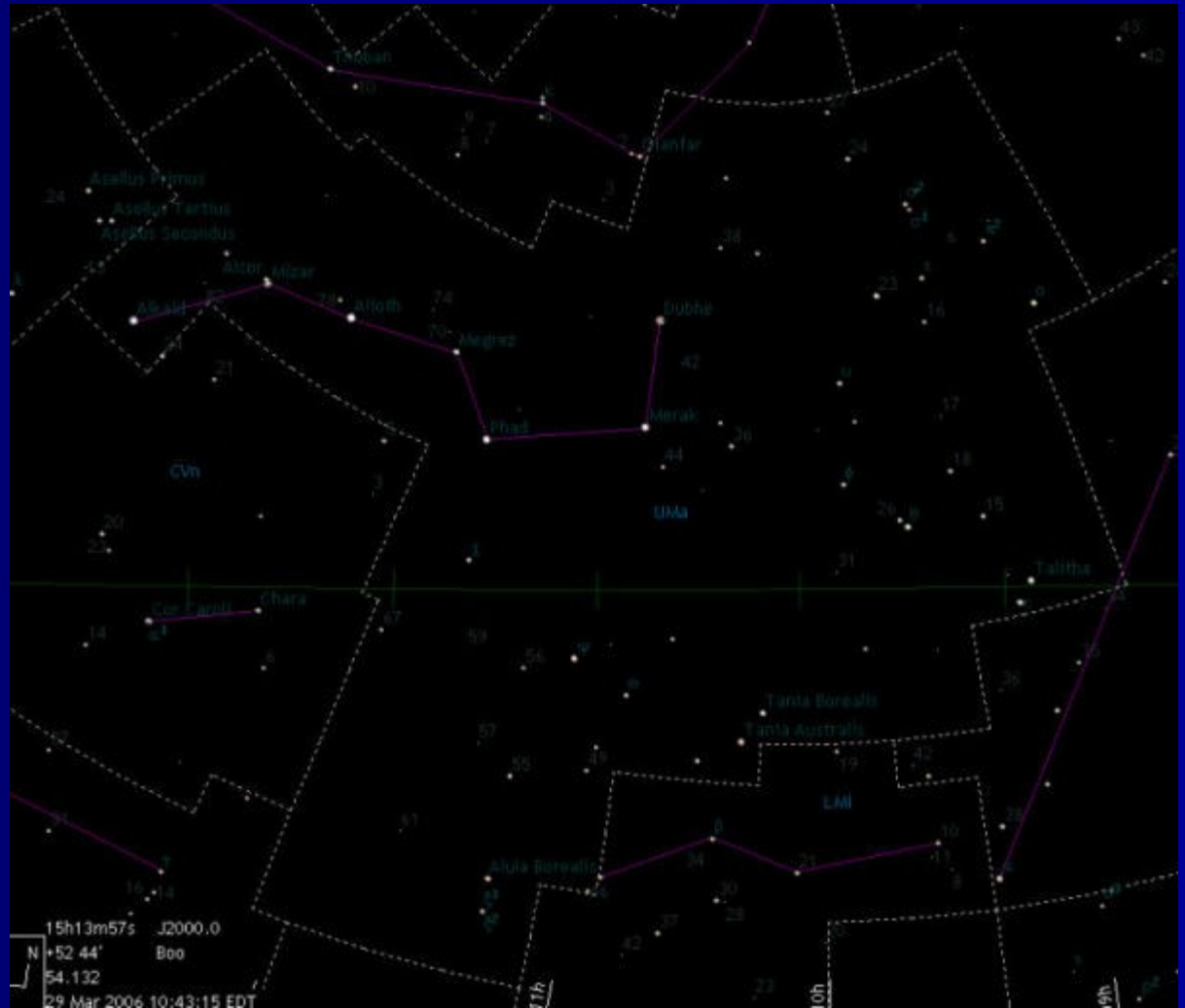
How Big?



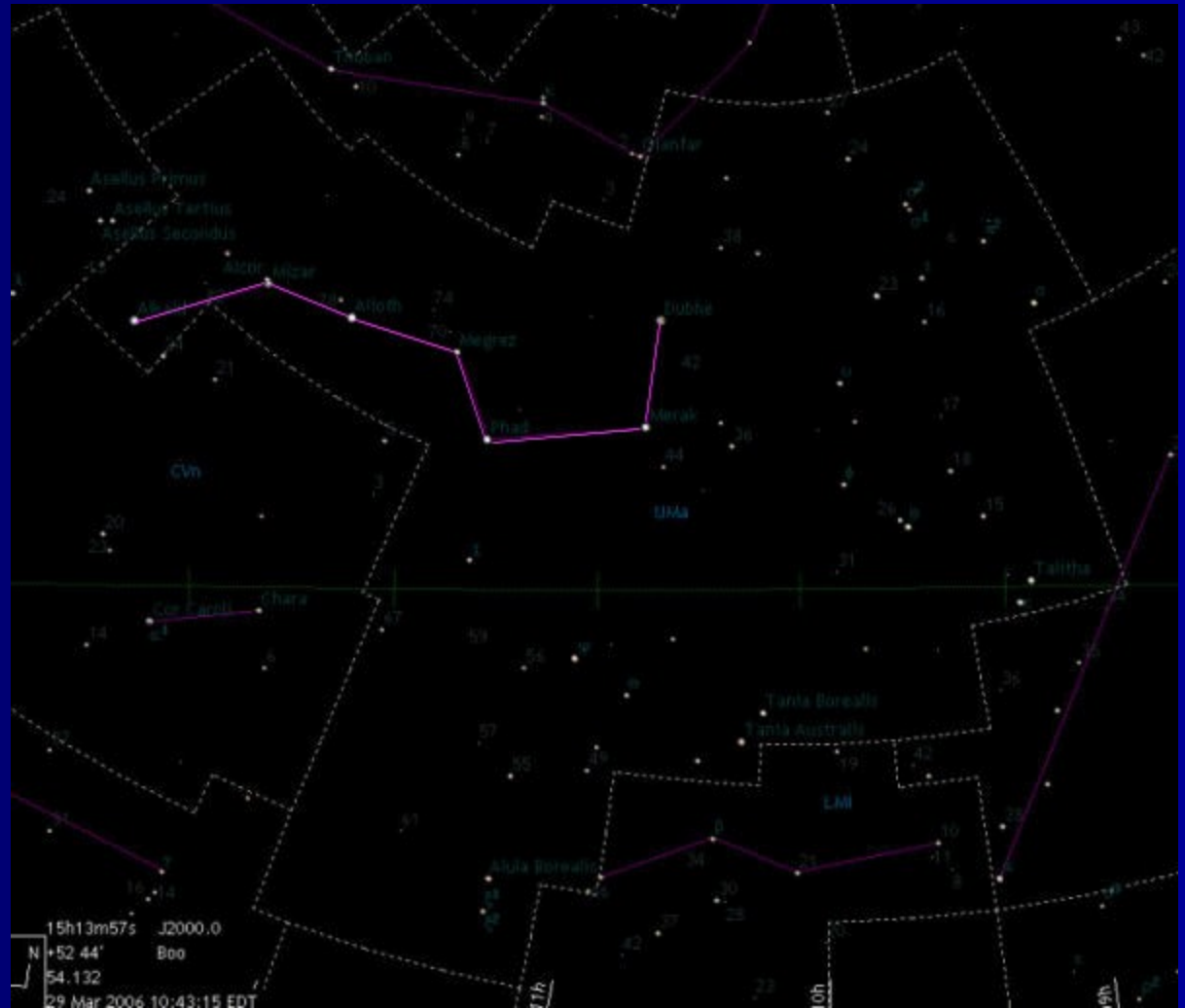
The 88 Constellations

- A great way to begin
- A requirement for finding objects
- Start with easy ones
 - Ursa Major (includes the Big Dipper)
 - Orion
 - Cassiopeia (the “W”)
 - Ursa Minor (the Little Dipper)

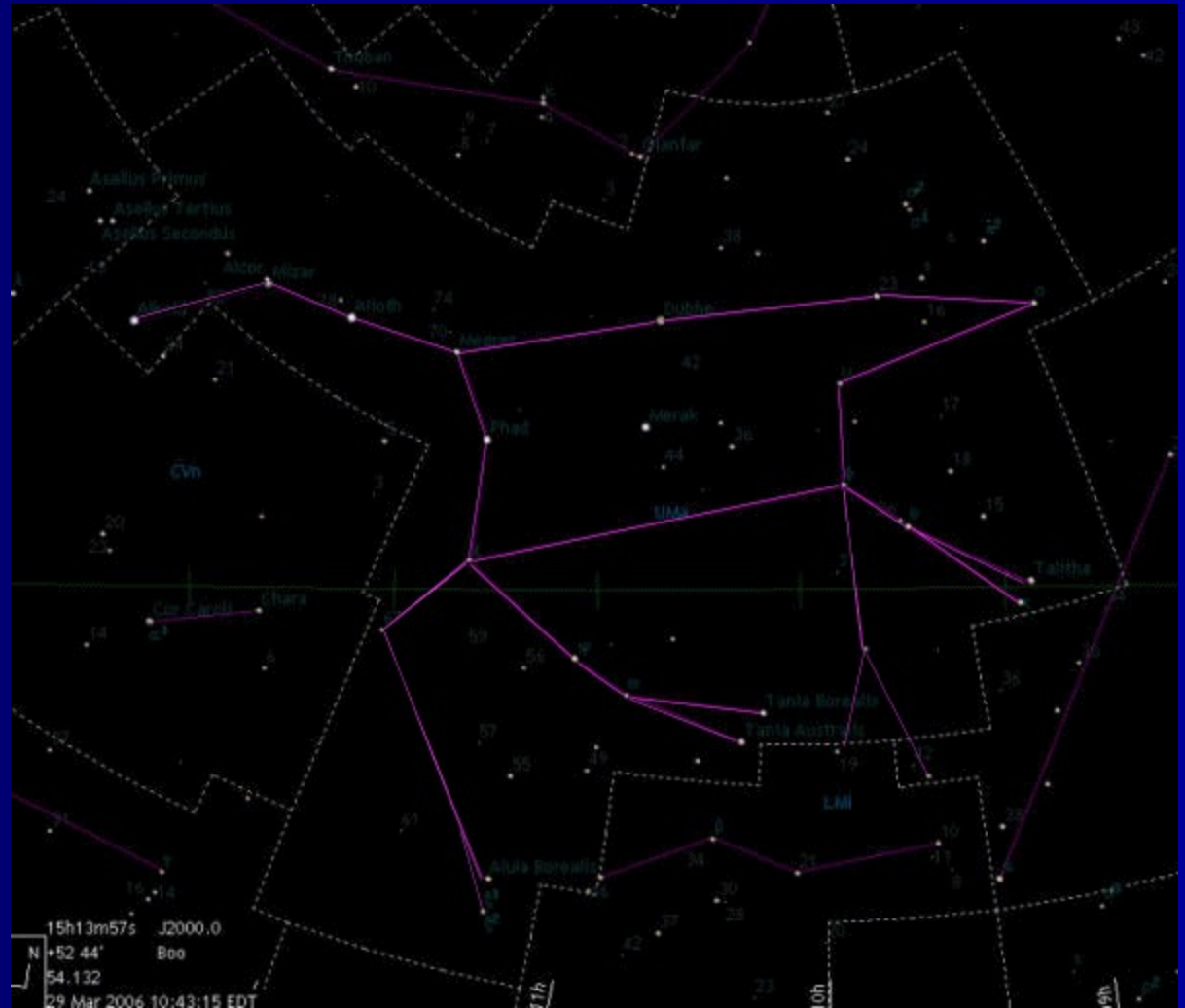
Ursa Major



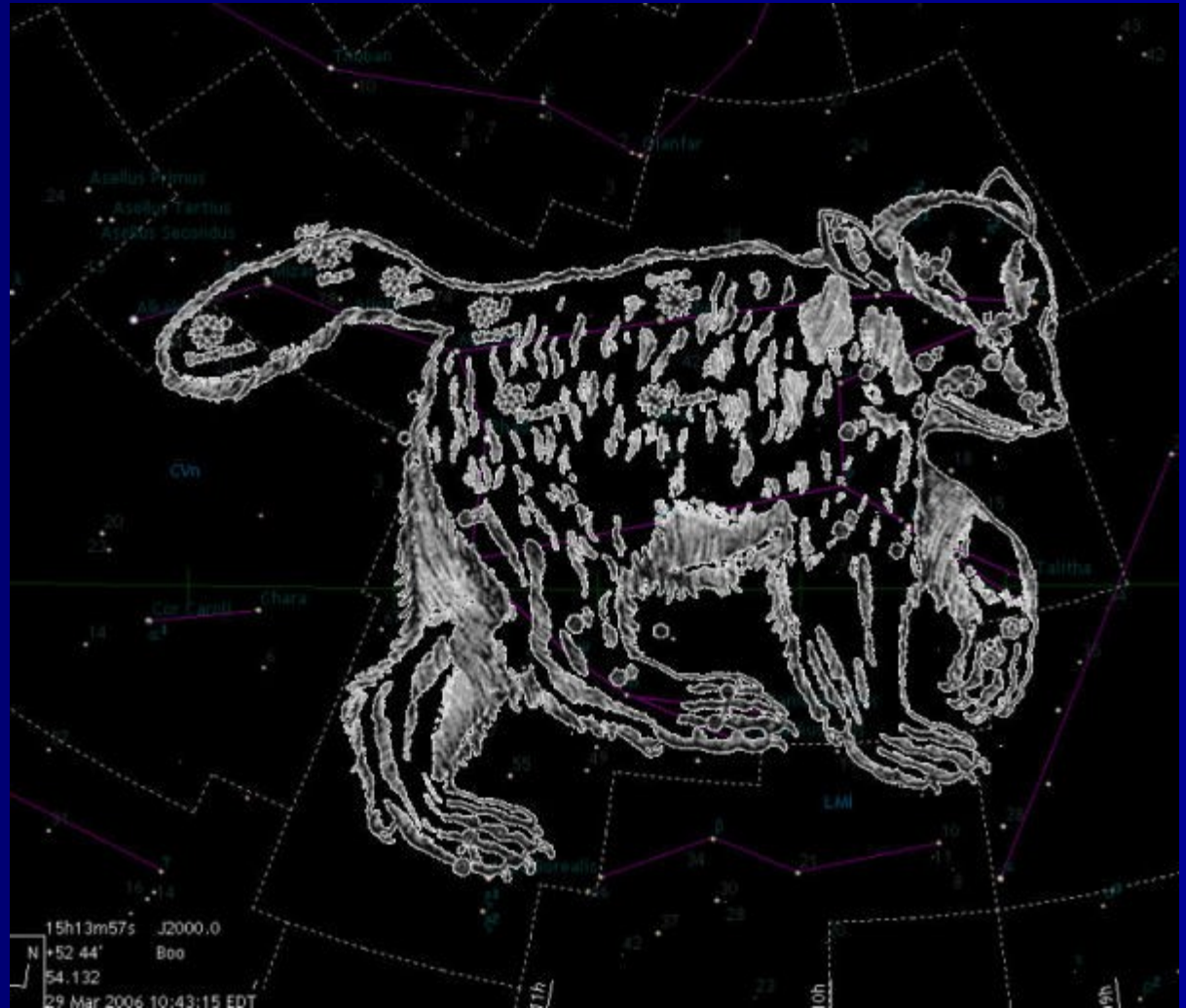
Ursa Major



Ursa Major



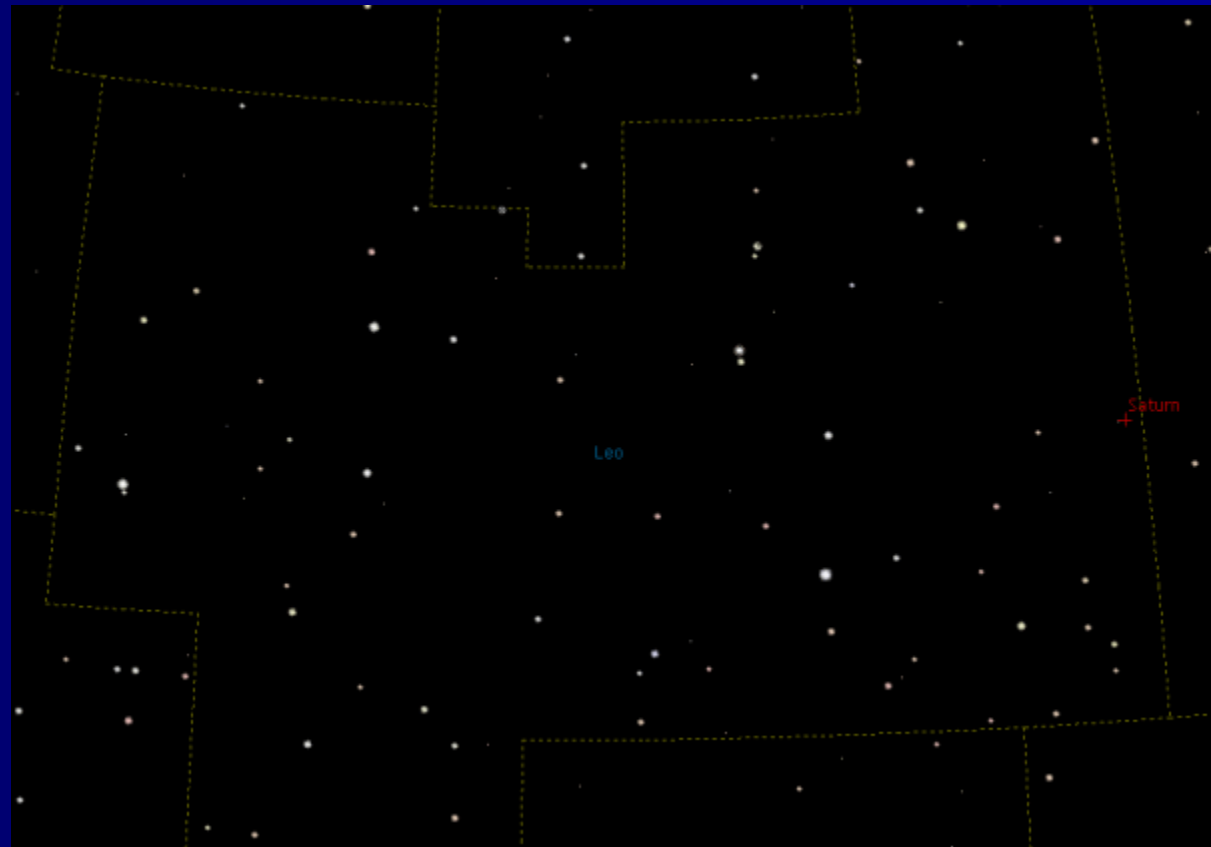
Ursa Major



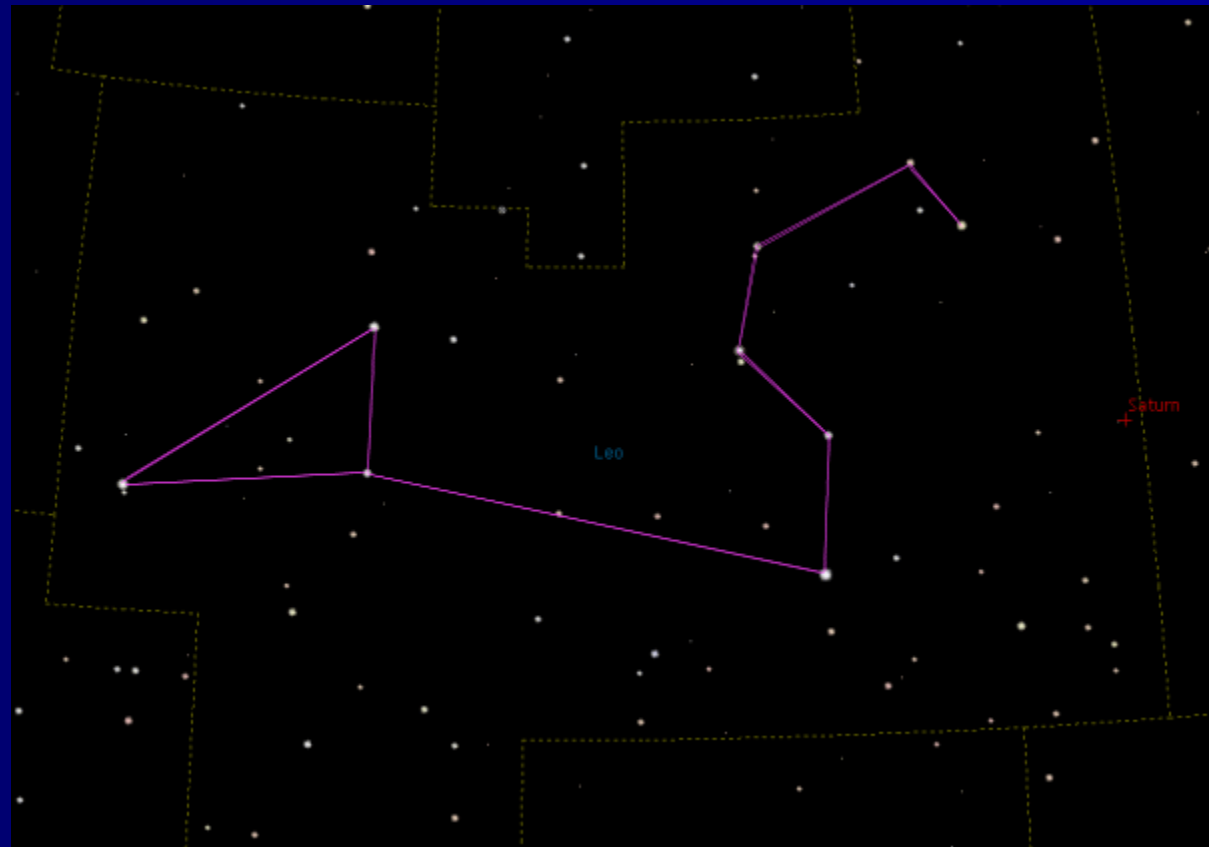
The 88 Constellations

- Next, learn some other easier ones
 - Gemini
 - Pegasus
 - Leo
 - Canis Major
 - Auriga

Leo



Leo

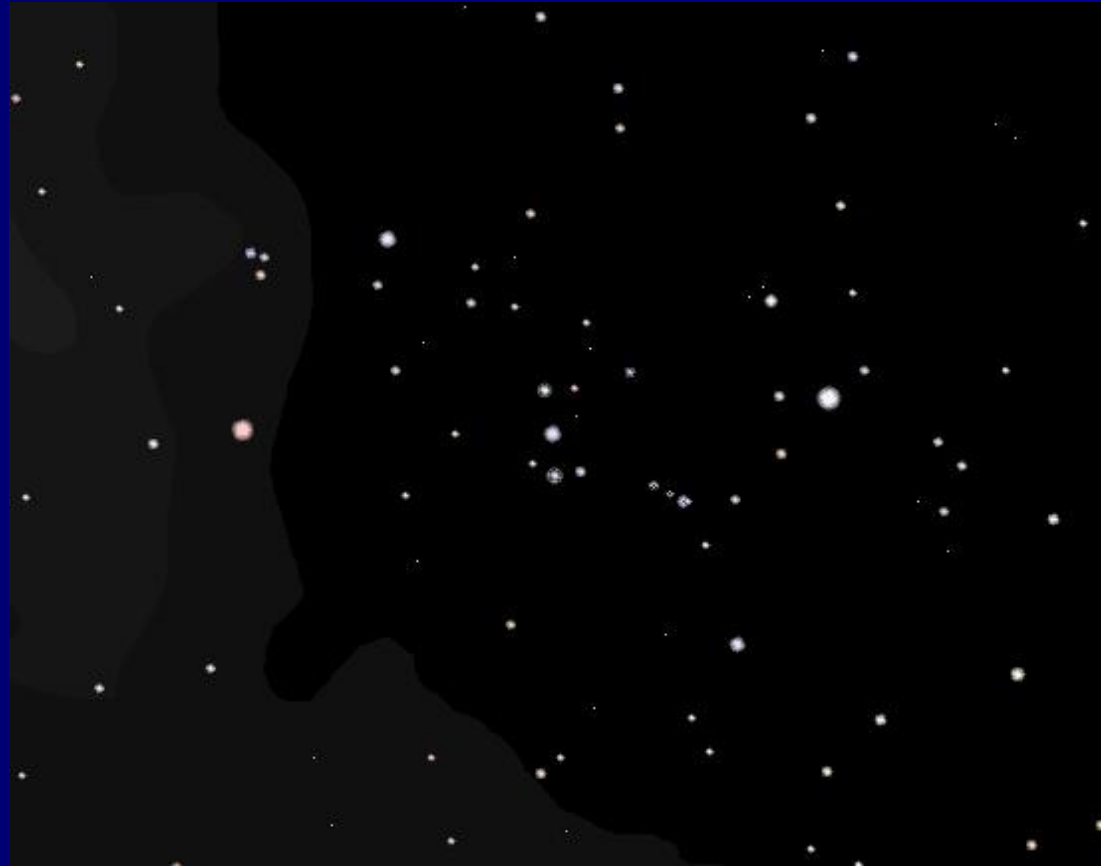


The 88 Constellations

- Learn the other ones as the need arises
 - Cancer
 - Perseus
 - Virgo
 - Bootes
 - etc.
- Time and Date Matters

The 88 Constellations

Orion
Rising



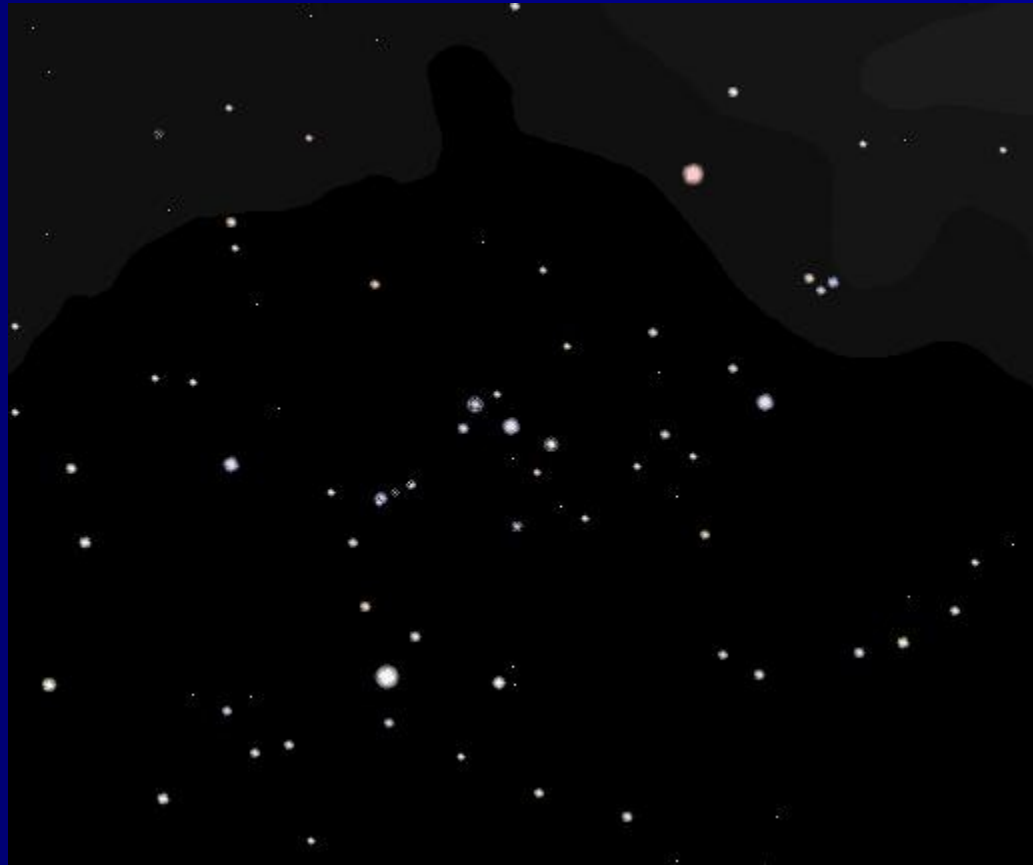
The 88 Constellations

Orion
Meridian



The 88 Constellations

Orion
Setting



You Need a Map (review)

- Paper (Atlas)
 - Edmund Mag 6 Star Atlas
 - Norton's Star Atlas
- Electronic (Programs)
 - Cartes du Ciel (free)
 - Many available \$30-\$600
 - Guide, Astroplanner

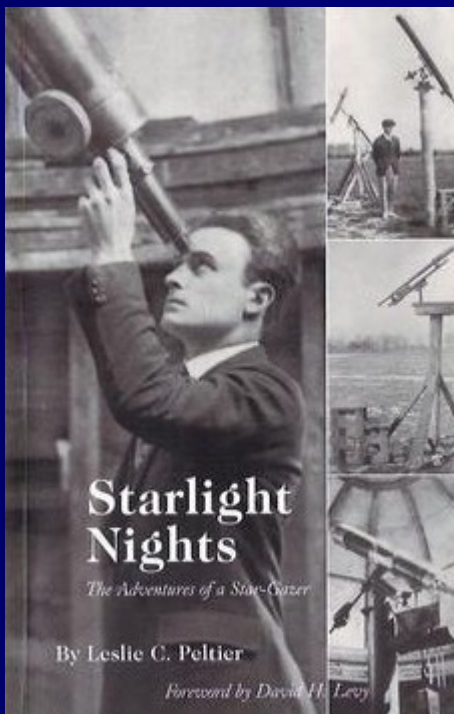
Books for Beginners

- Just Starting
 - Starlight Nights
 - The Monthly Sky Guide
- Books About the Hobby
 - Constellation Guidebook
 - DK Stars and Planets
 - The Backyard Astronomer's Guide
 - Astronomy Hacks
 - Binocular Astronomy

Books for Beginners

- **Starlight Nights**, Leslie C Peltier, \$15

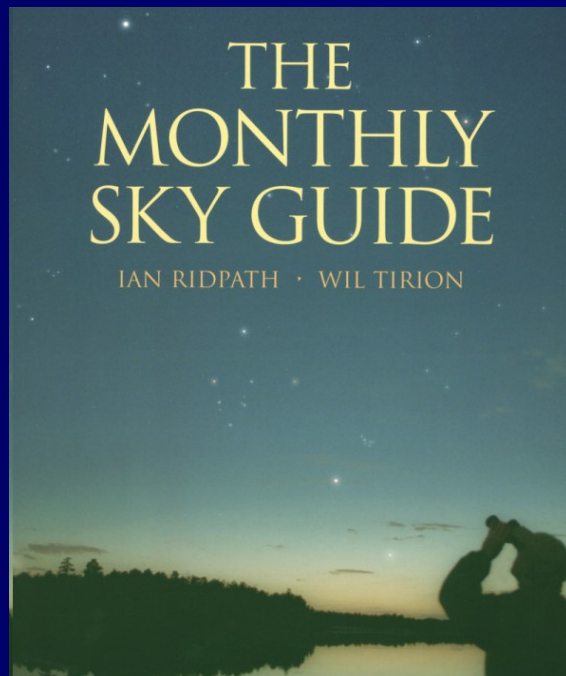
A book about why astronomy is fun! In a career spanning six decades and using telescopes from 2 to 12



inches in diameter, Peltier discovered a dozen comets and six novae and made more than 100,000 observations of variable stars.

Books for Beginners

- **The Monthly Sky Guide**, Ian Ridpath & Wil Tirion, \$11 (\$16)



Organized in a monthly layout, this book lists for each month of the year info on planets and meteor showers and one or two prominent constellations..

Books for Beginners

- Constellation Guidebook, Antonin Rukl

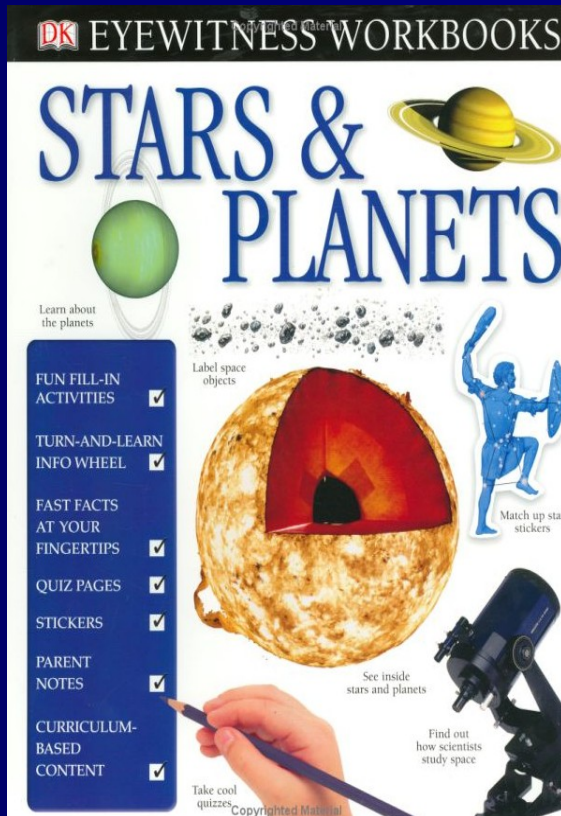


A complete set of the constellations and a complete map of the sky. A few objects are detailed for each constellation providing a good variety.

(out of print, \$4 used)

Books for Beginners

- DK Stars and Planets, Ian Ridpath, \$10

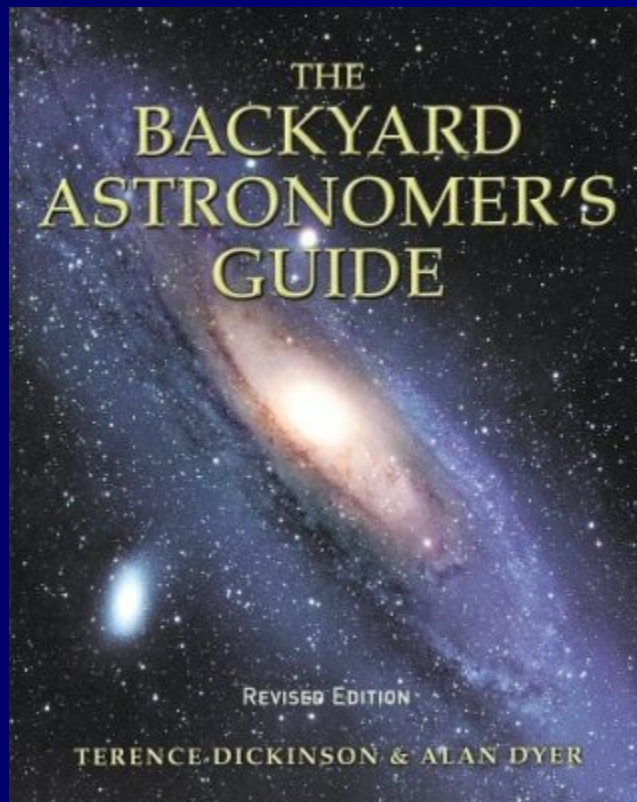


Primarily a constellation guidebook. Excellent science, highly visual presentation.

This book has monthly all sky charts and a section with a good collection of objects presented monthly. Complete data on all the planets.

Books for Beginners

- **Backyard Astronomer's Guide**, Terrence Dickenson & Alan Dyer, \$33 (\$50)

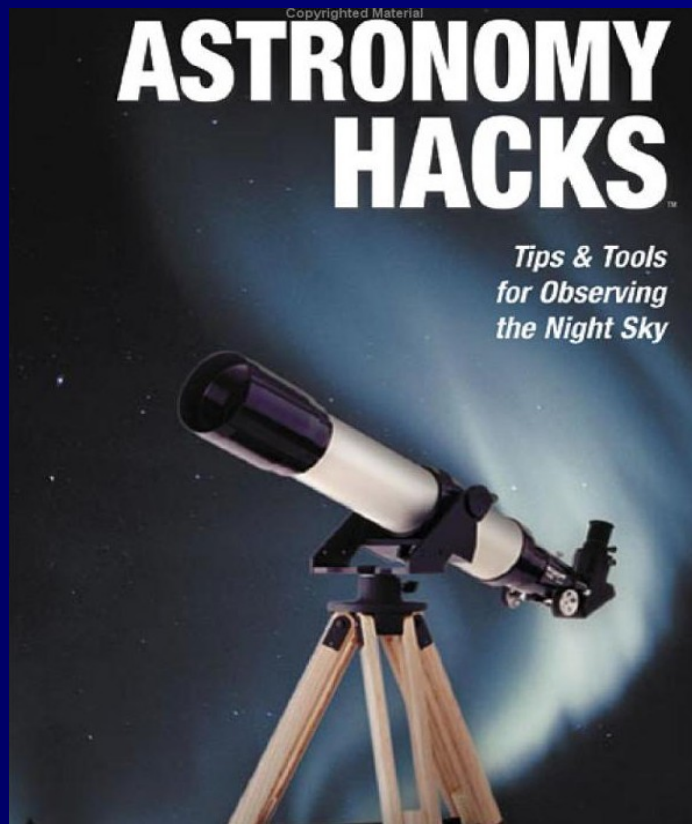


This is not a constellation guidebook. It is a guidebook to all the things you could learn about astronomy that will make your experience a little easier and a little better.

This is one of those books that offer advice, tips and instruction for everyone, beginner, intermediate and advanced.

Books for Beginners

- **Astronomy Hacks**, Robert Bruce Thompson & Barbara Fritchman Thompson, \$16 (\$25)

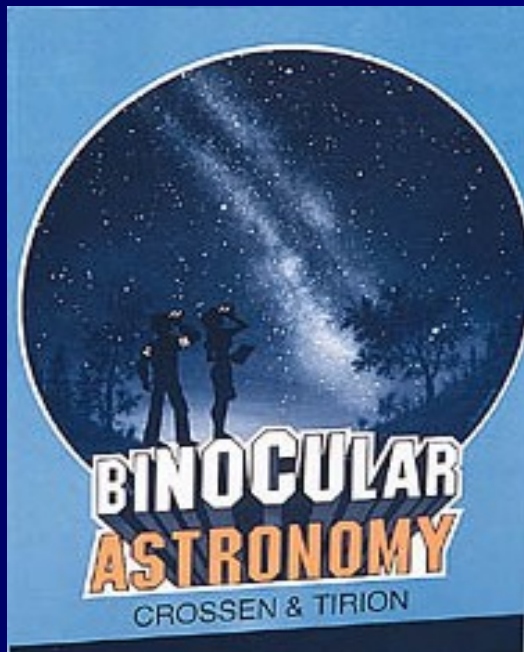


This handy field guide covers the basics of observing, and what you need to know about tweaking, tuning, adjusting, and tricking out a 'scope.

This book ties together computers, hand-held devices, and telescopes

Books for Beginners

- **Binocular Astronomy**, Craig Crossen & Wil Tirion \$25



Organized by season. Lists about 250 objects visible in binoculars.

A great strength of the book is the outstanding sky photos with deep sky objects identified, making this a great choice for the beginner or avid novice.

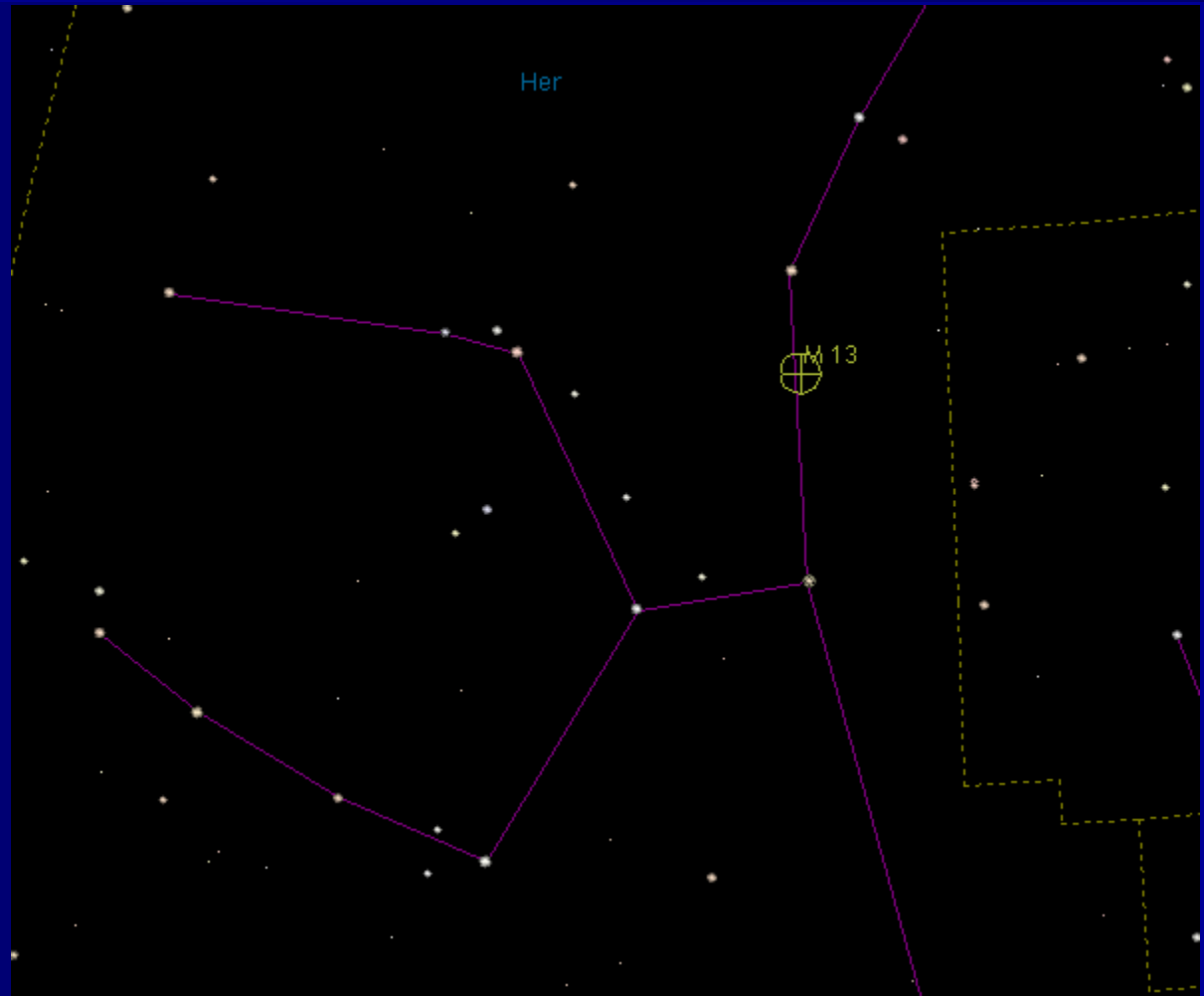
(Willmann-Bell)

Star Hopping

- Start from somewhere obvious
- Using a star map, figure out a way to “get there from here”
- Ideally use a map which matches the view you’re using (naked eye, binos, telescope)
- Make a “field of view” ring

Star Hopping

M13 in Hercules



Star Hopping

**M13 in
Hercules**

