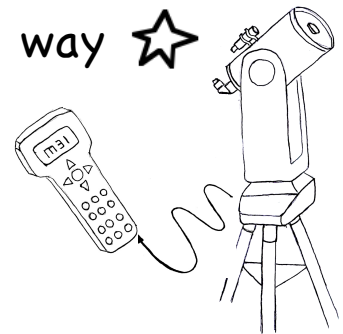


How do you find celestial objects?

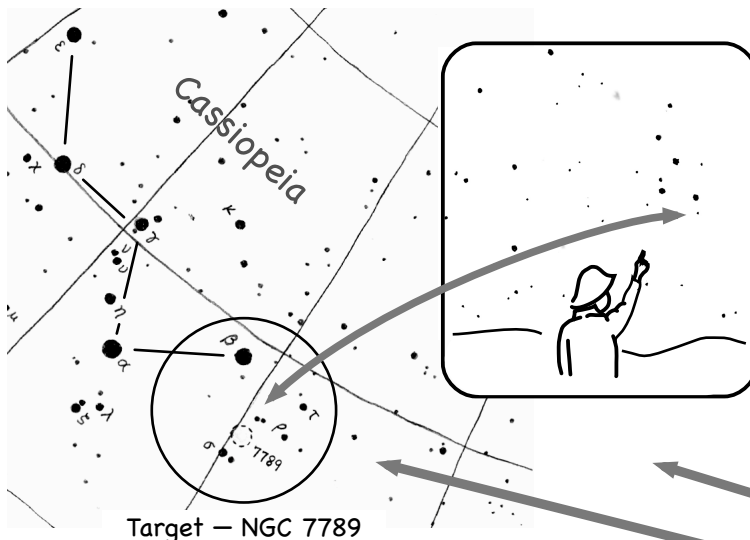
☆ Finding celestial targets the modern way ☆

Computerized "GoTo" telescopes ... the quick and easy method:

- 1 Level the telescope mount
- 2 Point the tube towards north
- 3 Indicate the date and time
- 4 Indicate observing location
- 5 Center on first guide star
- 6 Center on second guide star
- 7 Enter the target's designation
- 8 The scope automatically slews to it



☆ Finding celestial treasures the old fashioned way ☆



1 Learn the stars and constellations

- ★ There is no substitute for sitting under the stars with a map and red flashlight.
- ★ Use a star map that plots all stars visible to the unaided eye.
- ★ Start by finding well-known star patterns such as the Big Dipper, or the constellation of Orion or Cassiopeia.
- ★ Continue by identifying neighboring star patterns.

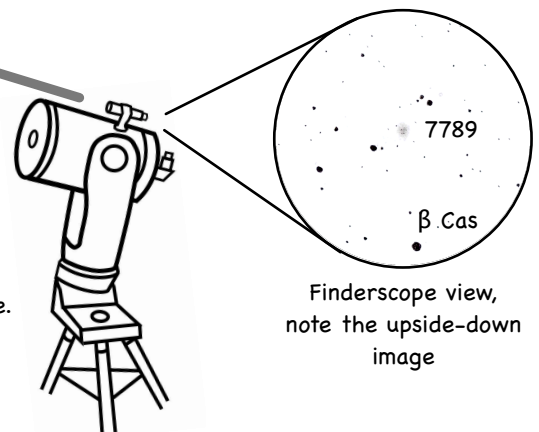
2 Finderscope: little scope, big view

Why a finderscope?

- ★ Gives a wide field of view, about 5°,
- ★ Must be aligned with the main telescope,
- ★ Only the bright planets, brighter nebulae and star clusters are visible.

Simply...

- ★ Point the finder at a suitable guide star, or
- ★ Triangulate to the object by using nearby recognizable stars.



Finderscope view, note the upside-down image

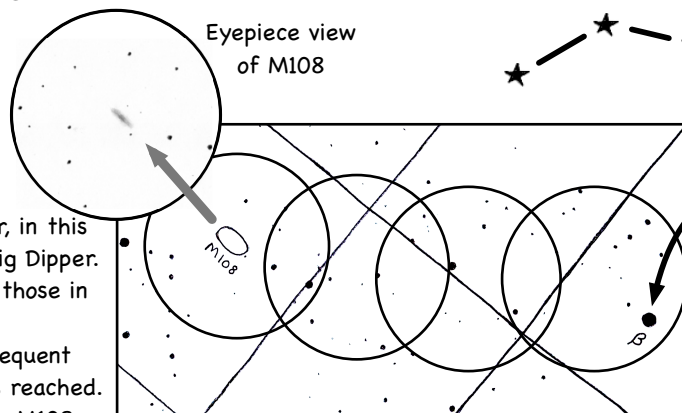
3 Star Hopping: finding the faintest of objects...

Before hopping begins:

- ★ Must have a **detailed** star map.
- ★ Must know the field of view of the eyepiece.

As an example, find galaxy M108:

- ★ Begin hopping at a reference star, in this case Beta (β) Ursae Majoris in the Big Dipper.
- ★ Match the stars on the map with those in the eyepiece.
- ★ Hop among the stars in each subsequent field of view until the correct field is reached.
- ★ Look closely to see the dim galaxy M108.



Star hopping to M108 from Beta Ursae Majoris

The Big Dipper

