

VATT Spec Observing Procedure

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After bringing up the telescope and cameras

Find Previous night's Focus, TipX, and TipY

Listed in the Trouble Report (in binder left of telescope control monitor)

I. Initialize Coordinates

Find a ~5th magnitude star on meridian at ~45° altitude

Right-click on star in Sky View, click "Telescope GoTo"

Watch "Finder" screen for star to go by

Usually the telescope must be moved north

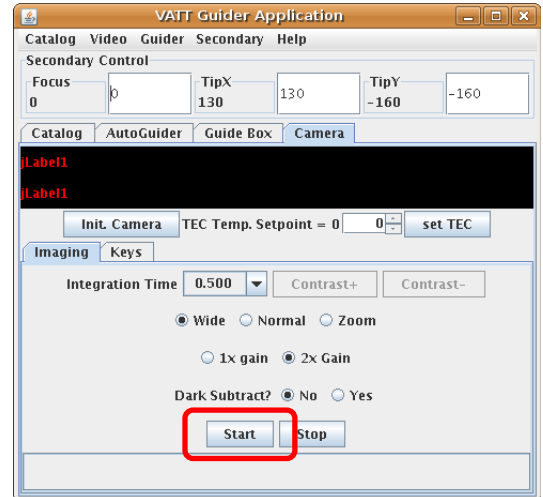
Find star in finder, place on mark using paddle

In Guider Application Turn on Camera

Click Start in camera tab, often takes two clicks

Place star near center of guider, above slit

In TCS, click "Init. Coordinates"



II. Collimation

Make sure Auto Collimation is enabled

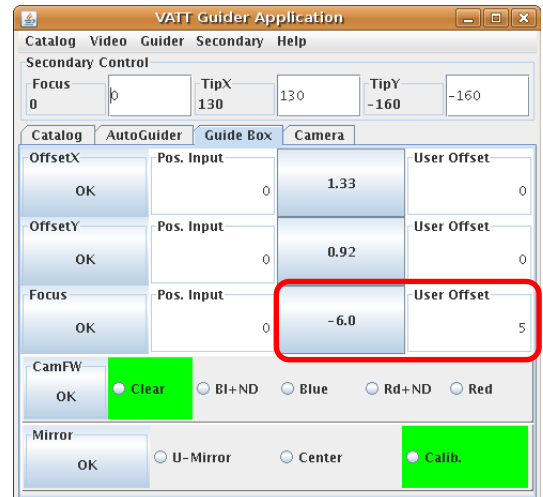
In VATT Guider Application

change Focus User Offset to -5 or -10

Image becomes donut

Put dark spot in center by changing TipX and TipY

Put Focus User Offset to original



III. Spectrograph Focus

Move Guider mirror to "Calib"

In VATT Spectrograph GUI, turn on lamps

On AzCam GUI, Click "Test Image"

a) Exposure time 5s, take image

b) Change focus down a few hundred from previous night's

c) Take Image (5s), it should appear in IRAF

d) In IRAF

- type "imexam"

- click in ds9 window

- choose a spectral line, place cursor near center, hit "j"

- a plot of the spectral line should appear, note FWHM

e) Change focus upward by ~200

f) Repeat c through e until a minimum FWHM is identified, that is the focus

g) Change focus to below chosen value, then come up to chosen value

IV. Telescope Focus

Move Guider mirror to "U-Mirror"

Place 5th or 6th magnitude star on slit

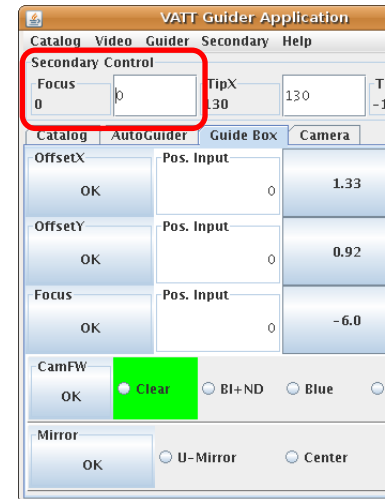
In VATT Guider Application

Reduce focus in Secondary by 20 (or so) from previous night

- a) Take 5s (or so) test image
- b) In IRAF, type "implot test"
- c) Click on plot, type "c"
profile of current column should appear
- d) Type ":c 1500"
profile of column 1500 should appear
- e) bring cross hair to top of column, hit space bar
- f) note peak value

Increase focus by 5 or 10 and repeat a through f

The best focus will give the highest peak



V. Observe the Universe