The GALAH experience

A flock of observers sitting on the fence
but ready to get going…

By Joss Bland-Hawthorn, while observing from home.

GALAH remote observing at-a-glance (JBH)

Remote observing starts with your home environment.

The DELL widescreen is 70cm, but you can go twice that if you want. Sergio L-S has one in his office if you want to see an ultrawide screen. Insane!

Talk to me about discounted screens.

Quick things:

- Join Zoom Meeting to site – use the details emailed to you – mine looked like this:

https://anu.zoom.us/j/83534848312?pwd=Tm9la3BneVJkVS9JYnJWR2hMMU43QT09

- Open GALAH observing slack channel – the other GALAH people are your brains trust. Be sure to report each night what is going on via this channel. I found my fabulous colleagues invaluable with their touch-up advice on exposure times, what to observe, quick fixes, gotchas, etc.

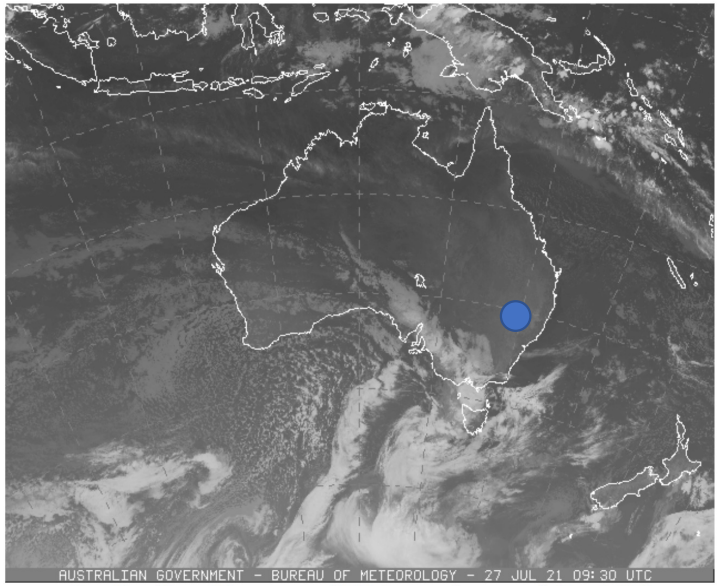
https://app.slack.com/client/TQCMPC4EA/CQA1XLS4C/thread/CQA1XLS4C-1627303071.360600

- Download the GALAH observing plan from the Slack channel. There may be bright fields to be done near twilight, for example. There may be faint fields for when the moon is down.

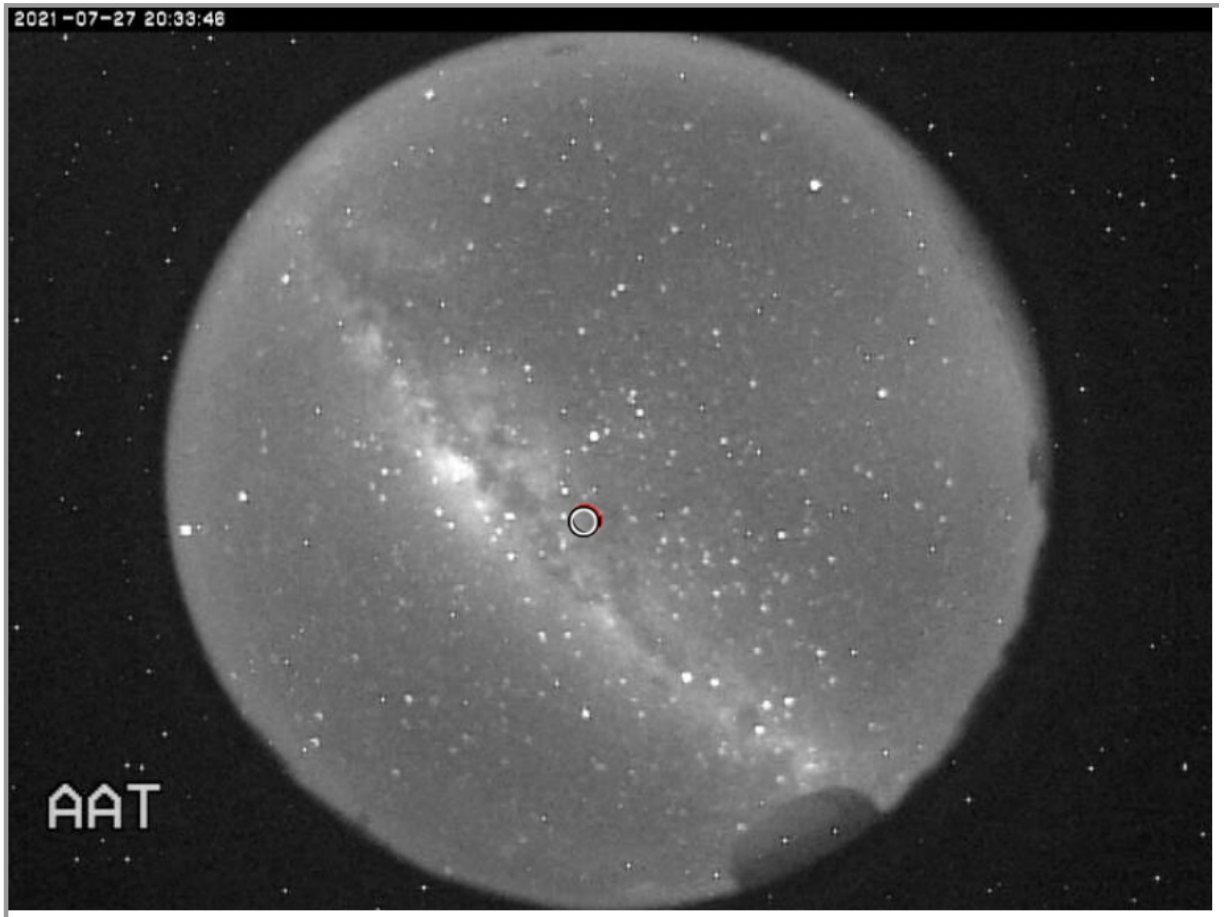
- Download Sarah's excellent notes on the GALAH observing procedure if this is your first time (in a long time). There are a few pages also from Chris Lidman about observing from home with a few key guidelines and phone numbers (see Appendix).

- Get your **weather cameras** up, e.g. AAT camera that gives you inside vs. outside dome temp and so on. That's one indication of good vs. bad seeing across the night. See the first link on the next slide.

If it looks to be clear, you need to get going **3 hours** before twilight to have enough time. The instrument focus can be a pain, and you want to check that 2df is behaving on both plates.



Australian Bureau of Meteorology - latest IR



Images from AAT cloud cam.

Weather channels

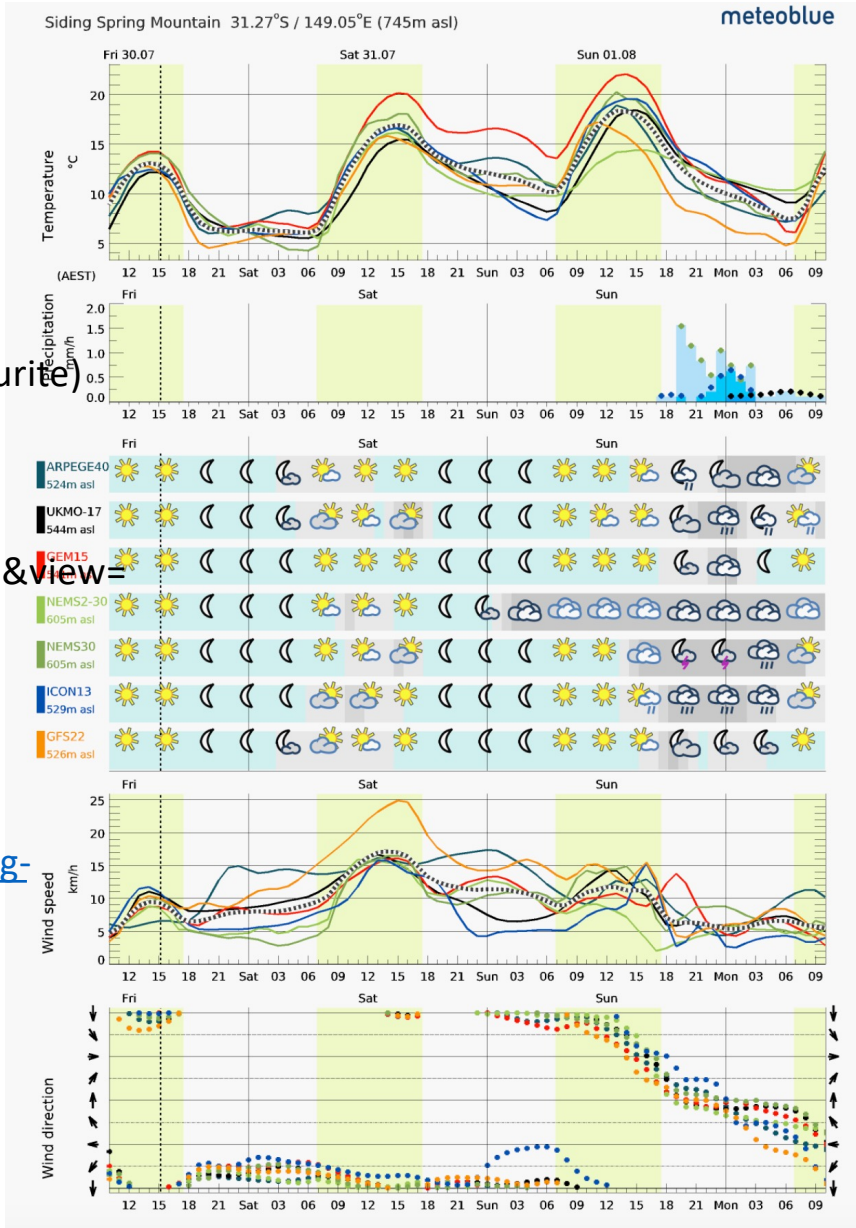
- *The key site:*
http://aat-ops.anu.edu.au/AATdatabase/met.html

https://www.weatherzone.com.au/satellite/nsw/infrared-bw (site staff favourite)

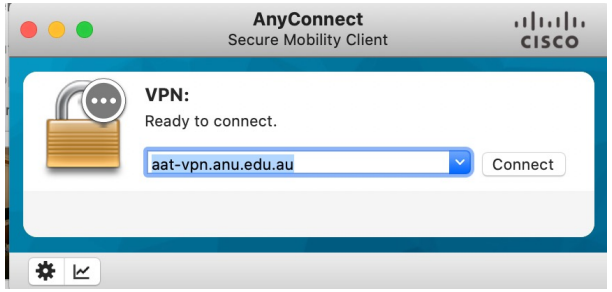
https://www.weatherzone.com.au/radar/nsw (site staff favourite)

http://www.bom.gov.au/australia/satellite/?tz=AEST&unit=p23&domain=14&view=34&satSubmit=Refresh+View

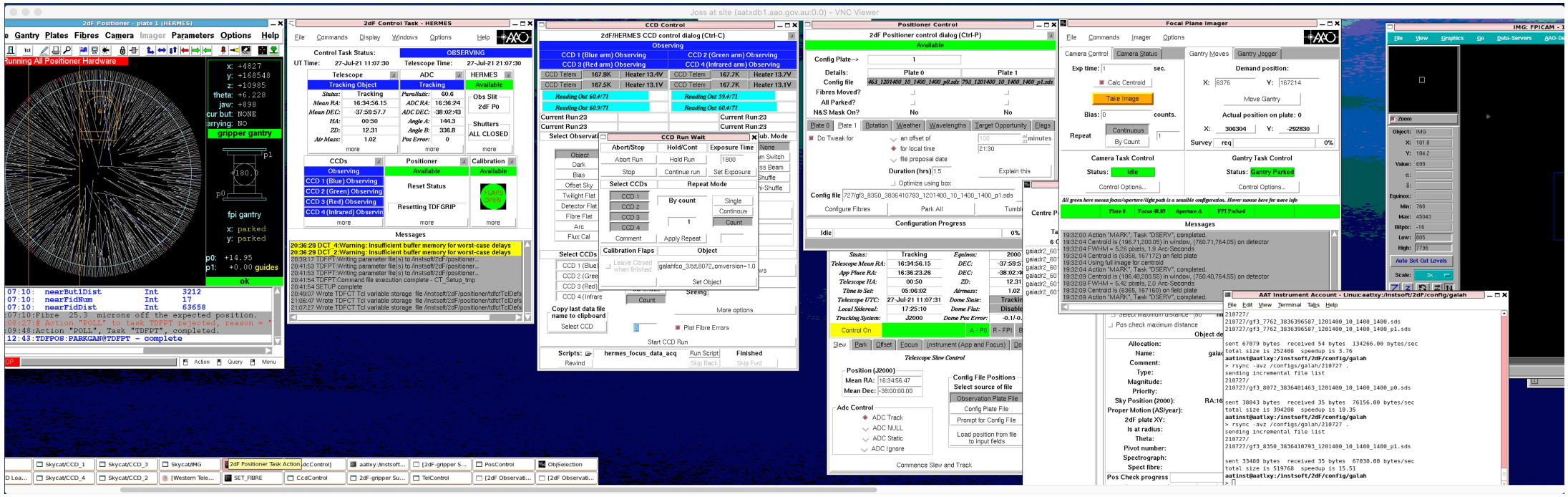
- *This site gave me RHS data – I found this reliable 2-3 days into the future:*
https://www.meteoblue.com/en/weather/forecast/multimodel/siding-spring-mountain_australia_2149557



- Get **VPN** running – if you filled out the AAT observing form, details are emailed to you by Zoe Holcombe (ANU) before run. Without VPN, you have no access to **galah@aatlxe;** you may be blocked until 3pm. See later for how you can get early access via the Tech button.



- Get **VNC** running to see telescope/instrument console at site. If you click on the top bar, you can set the image to the lowest resolution to speed up the connection. Sometimes, the screen freezes but you can reset the connection in <2 mins. Look at the telescope time – *the seconds should be changing*. Also, note that half your screen may be missing to the RHS so click bar at bottom.



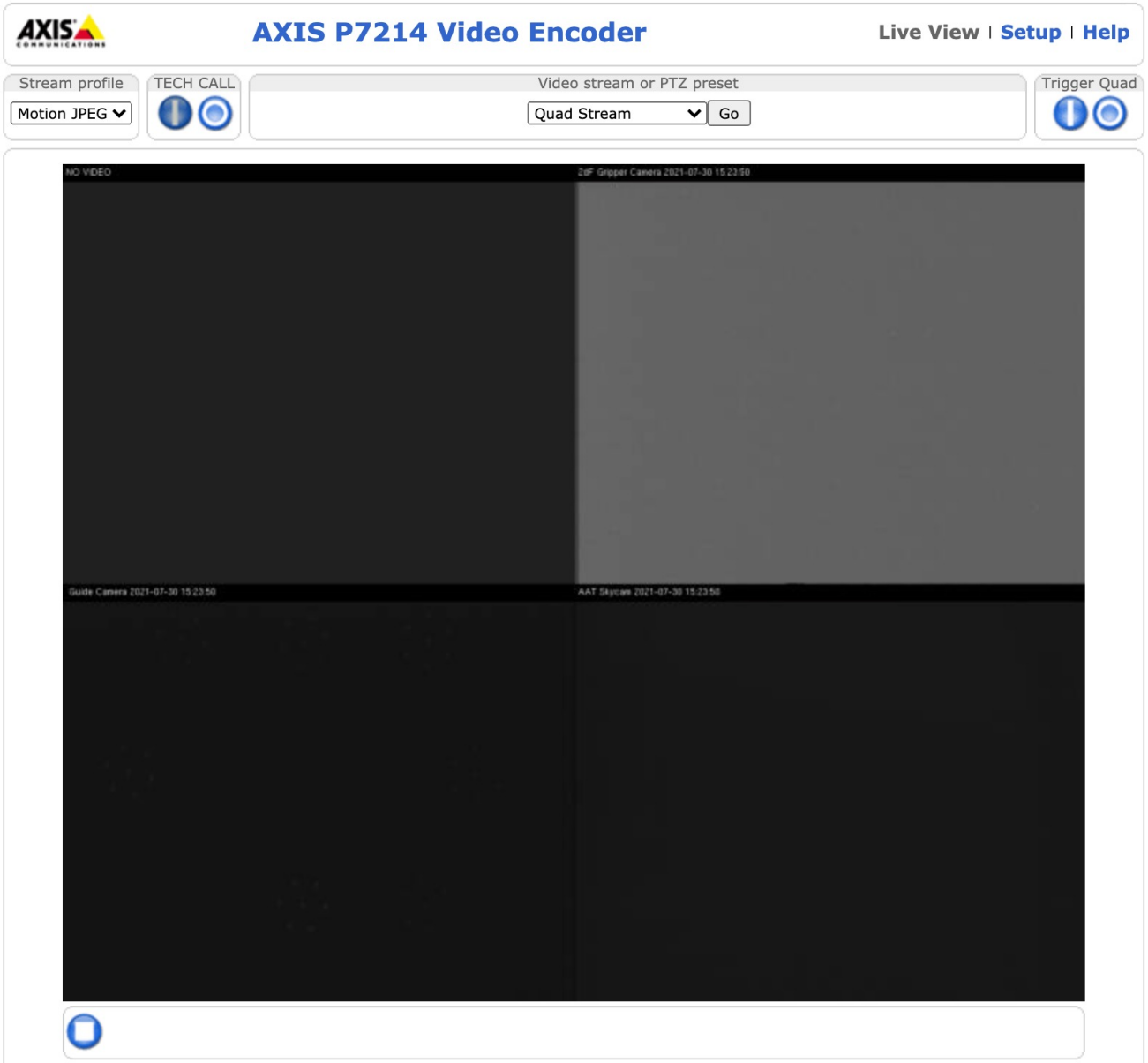
- After the VPN connection is made, bring up the **robot camera** in your web browser that shows instrument, dome slit, etc.

http://10.88.90.80/view/

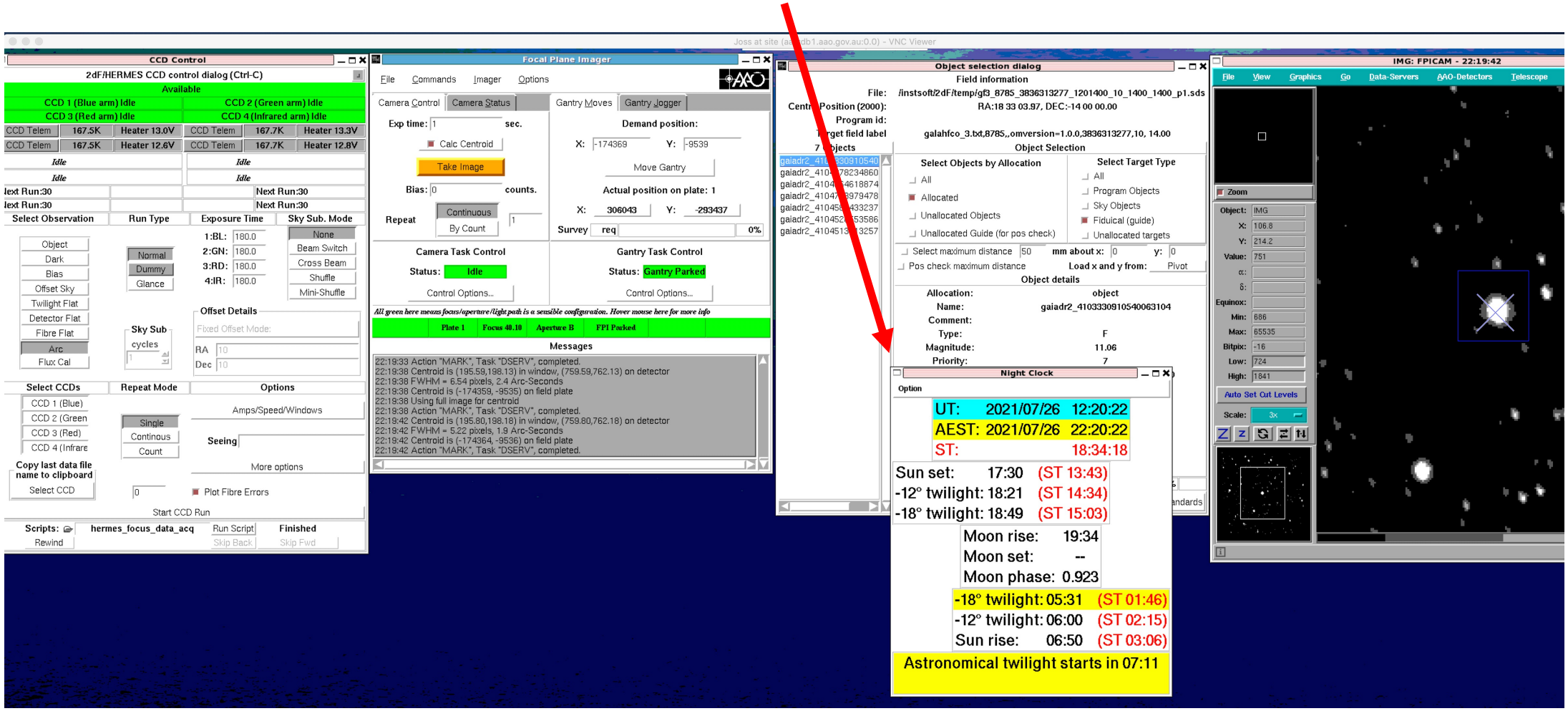
If you run into issues, click on **TECH CALL** and this sounds the alarm. Turn off once you hear footsteps.

The technicians will come.

For example, you may find VNC does not let you in after 3pm – they can accept you.

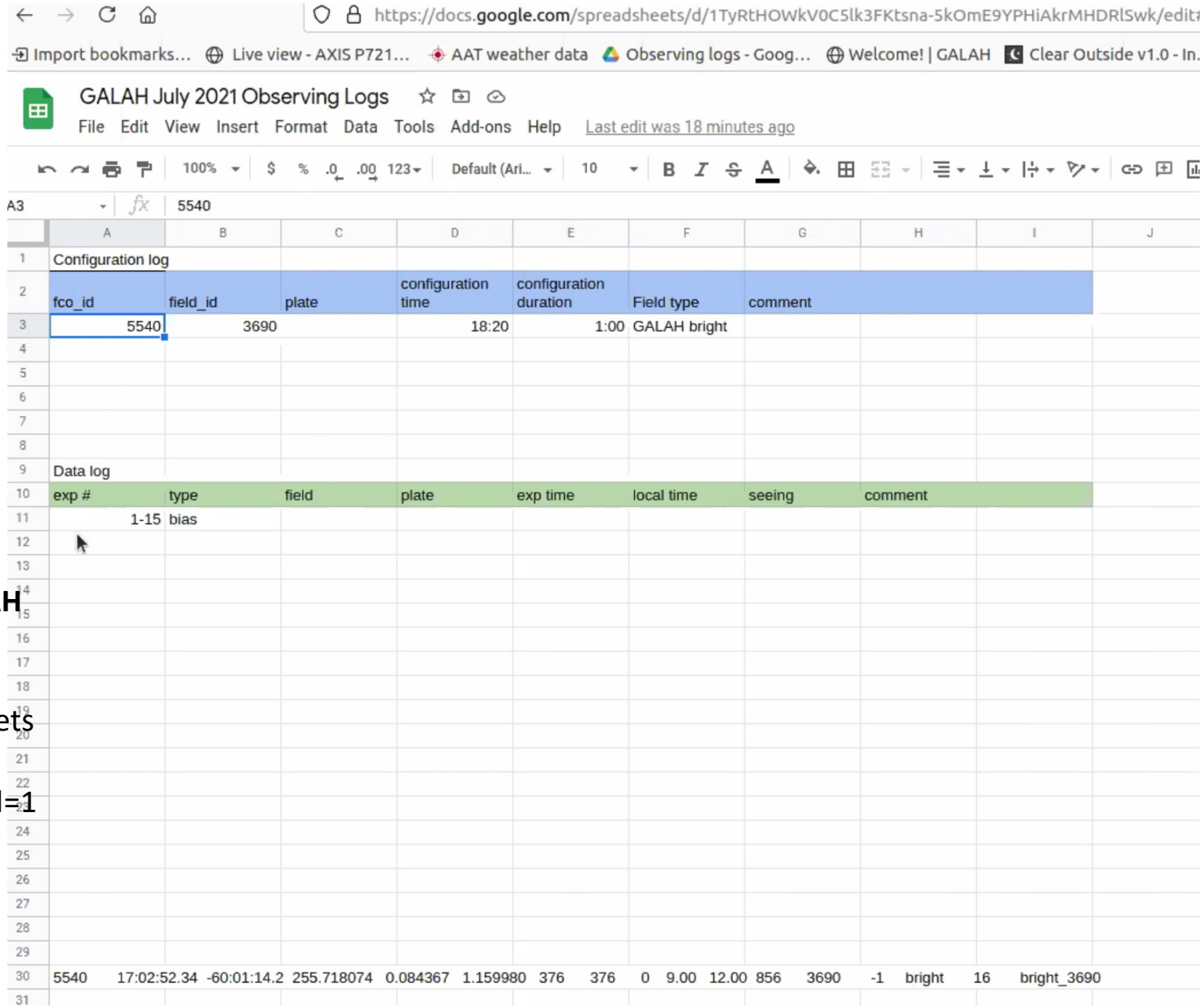


- The **night clock** on the instrument console gives you all the important local times. Note when twilight starts and ends. I think of the observing plan as hour blocks from one to the other since 2df takes 45 min to configure, and calibrations are about 10 mins. Also notice when the moon is up in case you plan faint fields.



- Open your browser and find the **GALAH observing logs** under google docs.

Just copy the last day's log page and edit the content.



How to open Google drive for GALAH observing notes:

https://docs.google.com/spreadsheets/d/1TyRtHOWkV0C5lk3FKtsna-5kOmE9YPHiAkrMHDRlSwk/edit#gid=1381248913

jhawthorn — galah@galah-obs: ~/obsmanager/current — ssh -X -Y galah@aatlxe — 176×22

```
5565      17:45:37.97  -56:24:18.7  266.408224   0.014903   1.112211  322     322     0    9.00   12.00  856     2967     -1    bright     1      bright
5566      17:45:51.86  -64:47:42.6  266.466091   0.013606   1.205882  255     255     0    9.00   12.00  856     2235     -1    bright     0      bright
5555      17:28:51.62  -60:57:55.4  262.215072   0.006473   1.166452  304     304     0    9.00   12.00  856     2897     -1    bright     9      bright
5567      17:49:13.92  -52:51:32.3  267.307992   0.017670   1.081964  327     327     0    9.00   12.00  856     3242     -1    bright     9      bright
5550      17:20:45.15  -64:30:50.8  260.188132   0.005413   1.214875  270     270     0    9.00   12.00  856     2704     -1    bright    23      bright
-----------------------------------------------------------------------------------------------
Name the fco_id you want to write (or n to exit):5567
-----------------------------------------------------------------------------------------------
vmag of fiducials              = 12.004126 <V< 12.082801
vmag of normal targets         = 9.0  <V< 12.0
No of fiducial targets         = 35
No of priority targets         = 0
No of normal   targets         = 327
No of extra    targets         = 0
No of already observed targets= 9
No of total galah      targets= 394
(RA,DEC,radius)=( 267.307992131 -52.8589654389 1.0 )
No sky targets= 100
file written: /galah/obs/survey/210728/fld/gf3_3242_3836488725_901200_1_1200_1200.fld
vmax=11.99842453 exposure required=854 s
Written file: ./obsmandata/archive/galahfco_3.txt
galah@galah-obs:~/obsmanager/current$
```

TERMINAL 1 – basic terminal.

jhawthorn — ssh -X -Y galah@aatlxe — 92×23

```
aatlxe:~> !!
~/scripts/fld_sds.sh 210728
sending incremental file list
sds/
sds/gf3_3242_3836488725_901200_1_1200_1200.sds

sent 131,704 bytes  received 41 bytes  263,490.00 bytes/sec
total size is 356,863  speedup is 2.71
receiving incremental file list

sent 57 bytes  received 395 bytes  301.33 bytes/sec
total size is 356,863  speedup is 789.52
sending incremental file list
./
gf3_3242_3836488725_901200_1_1200_1200.sds

sent 131,460 bytes  received 38 bytes  262,996.00 bytes/sec
total size is 261,148  speedup is 1.99
sending incremental file list

sent 102 bytes  received 16 bytes  78.67 bytes/sec
total size is 0  speedup is 0.00
aatlxe:~>
```

TERMINAL 2 - basic terminal.

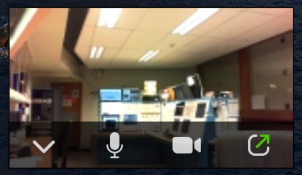
xterm

```
Thread 10 completes
Thread 11 completes
Thread 12 completes
Thread 13 completes
Thread 14 completes
Thread 15 completes
Thread 16 completes
Thread 17 completes
Thread 18 completes
Thread 19 completes
Thread 20 completes
Thread 21 completes
Thread 22 completes
Thread 23 completes
Initial setup took 20 seconds (49 CPU sec)
Starting the Annealing Schedule
Annealing Schedule Complete
Affectation effect = 0.000000
Over 104132569 calculations:
Affect values: min 0.000000, max 0.000000 mean 0.000000
Priority values: min 128.000000, max 256.000000 mean 137.915213
Over 353 allocations:
Max alpha 12.099970, mean 1.902698
```

TERMINAL 3: Xquartz xterm – essential for graphics plotting with **configure.**

My standard layout.

I close the Zoom window
And you get this tiny active window – useful.



_Commands-Cut-Paste.txt

210727 Done Replace

```
<ALSO>

vnc ip: aatxdb1.aao.gov.au
password: x2display

(VNC has a settings button, I put on LOW res to speed up display; it can
Freeze on screen so be sure to check numbers changing. Takes a second to restart)

.......................................................................
Activate Zoom link sent to Observer by ANU in email (Zoe Holcombe)
.......................................................................
anu.zoom.us/...

.......................................................................
We need three terminals running:
.......................................................................

SSH times out - so this is how I got rid of password line:

1. ssh-gen
(When it asks for passphrase, hit return twice, i.e. no password)

2. cat ~/.ssh/id_rsa.pub | ssh galah@aatlxe 'cat >> ~/.ssh/authorized_keys'
(This will ask for actual password for aatlxe once)

3. ssh -X -Y galah@aatlxe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TERMINAL 1 - runs obsmanager
----------

ssh -X -Y galah@aatlxe
aatlxe password: zYvysUBK23

ssh -X -Y galah@galahobs.datacentral.org.au

cd obsmanager/current
(These commands print out object list, makes local directory 210728 on 1st call)

./obsman1.py -print 2021/07/28 18:20 (galah regular)

./obsman1.py -print 2021/07/28 18:20 10 galah_bright
./obsman1.py -print 2021/07/28 18:20 10 k2

AT VERY END OF NIGHT:
(Run scripts one more time, edit /home/galah/survey/210728/comments file - see App. A,
and if you're in obsmanager/current, then...)

./obsman1.py -update (* end of night to tell datacentral fields observed *)
./obsman_report.py -wiki 210728


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TERMINAL 2 - for syncing field and data files after obsmanager & configure
----------

ssh -X -Y galah@aatlxe
aatlxe password: zYvysUBK23

~/scripts/fld_sds.sh 210728
(You run this AFTER obsmanager, and AFTER configure)

# diary/log file (Appendix A: structure of file)
cd /home/galah/survey/210728/


----------
TERMINAL 3 - for making sds files ahead of transfer to 2df control
----------

ssh -X -Y galah@aatlxe
aatlxe password: zYvysUBK23
```

Open text file full of relevant commands to cut and paste into the 3 terminals. This makes life so easy, esp. when you're tired.

Ancestry.png

How the terminals are used 1, 2, 3, 2, 4 …

TERMINAL 1:

ssh -X -Y galah@aatlxe
aatlxe password: zYvysUBK23 (you can get rid of this line)

ssh -X -Y galah@galahobs.datacentral.org.au

cd obsmanager/current

(Command to print out object list, makes local directory 210731, say, on 1st call. The call structure is like:)

./obsman1.py -print 2021/07/31 18:20 (regular galah field)
./obsman1.py -print 2021/07/31 18:20 10 galah_bright
./obsman1.py -print 2021/07/31 18:20 10 k2
(copy and paste your favourite field into the google docs file in slide 9)

Note: if you are choosing a field you want to observe past midnight, change date to following day.

obsman1.py is the **only time** you use the next day's date.

TERMINAL 2:

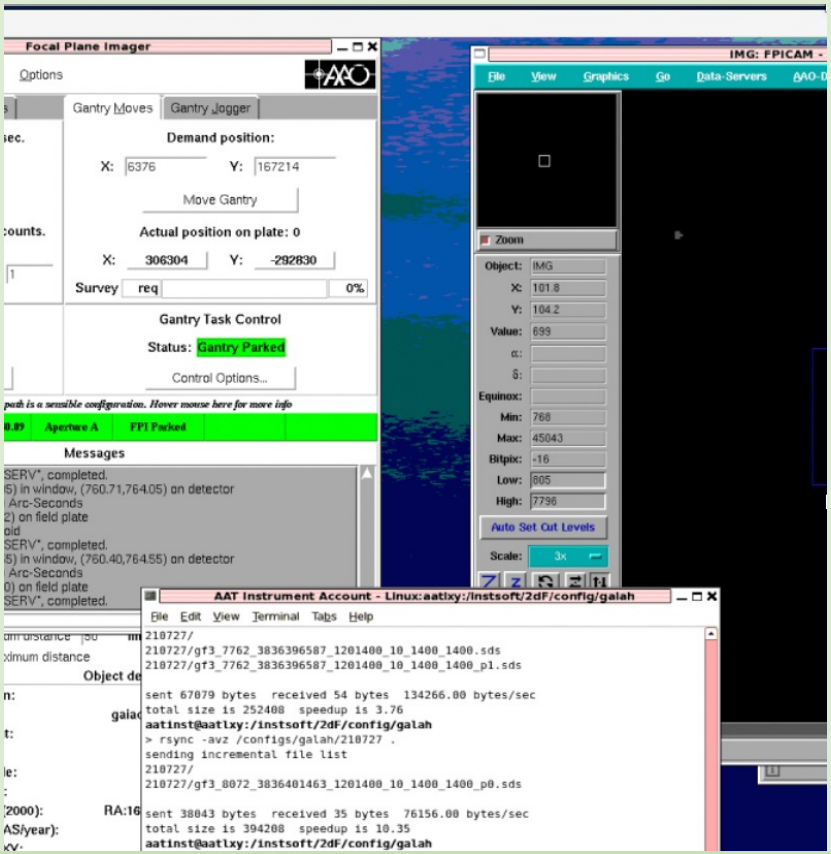
ssh -X -Y galah@aatlxe

~/scripts/fld_sds.sh 210731 (choose right date)
(You run this AFTER obsmanager **and** AFTER configure)

TERMINAL 3:

ssh -X -Y galah@aatlxe

configure (don't kill – keep running for all time since it then links to IO directories)
(see next slide for graphics.)

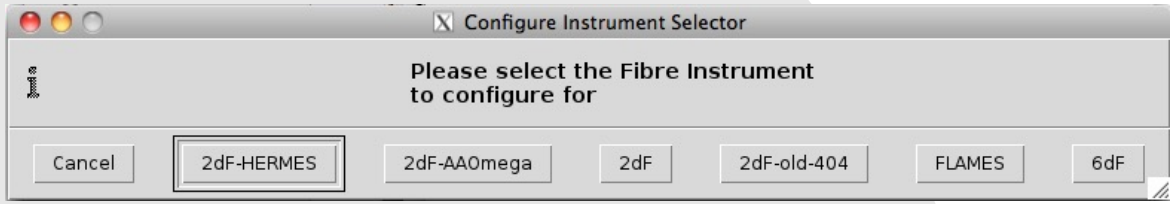


TERMINAL 4:

Go find AAT Instrument Account on instrument console and type **rsync** command above from the top directory (default) using correct date.

Start of night, "mkdir 210731" then transfer sds file using: "rsync –avz /configs/galah/210731 210731/."

Configure should really be called **pre-configure**. This is run to convert the .fld file from obsman into a .sds file for the 2df positioner control window. This is not the same as the **configure** you run at the AAT console.



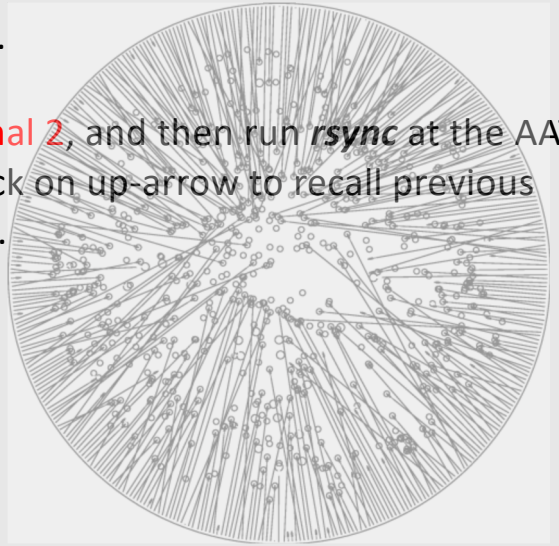
Click on *2df-HERMES* button.

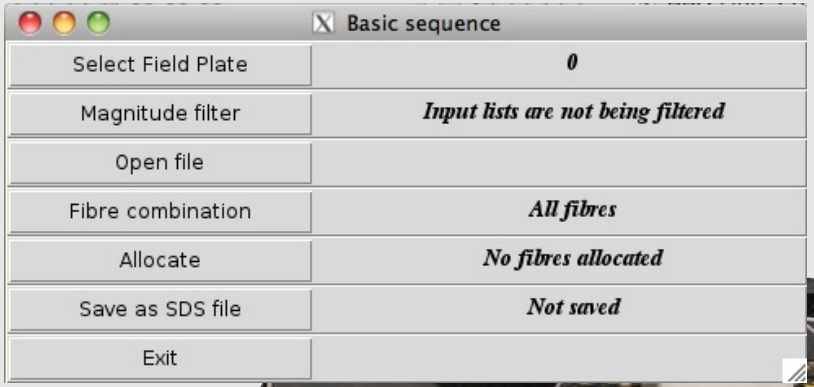
Select field plate, then *Open file* and click on survey/date/fld/.

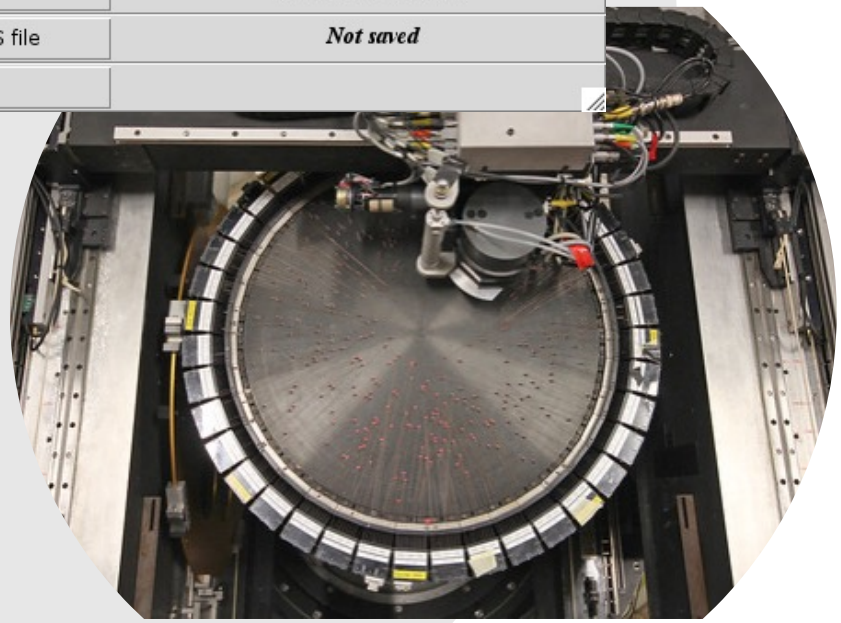
Allocate and check 6 guide stars allocated in 4 quadrants when the big graphic of the field plate pops up.

Save file in survey/date/sds/.

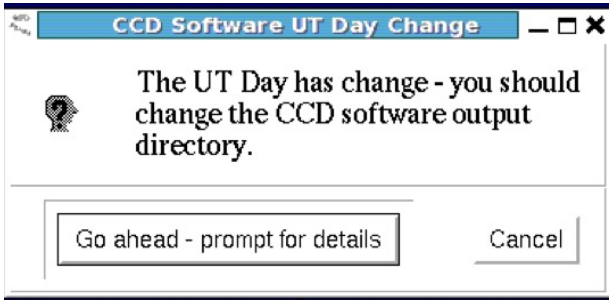
Run the shell script in Terminal 2, and then run ***rsync*** at the AAT console (Terminal 4). Just click on up-arrow to recall previous command on both terminals.

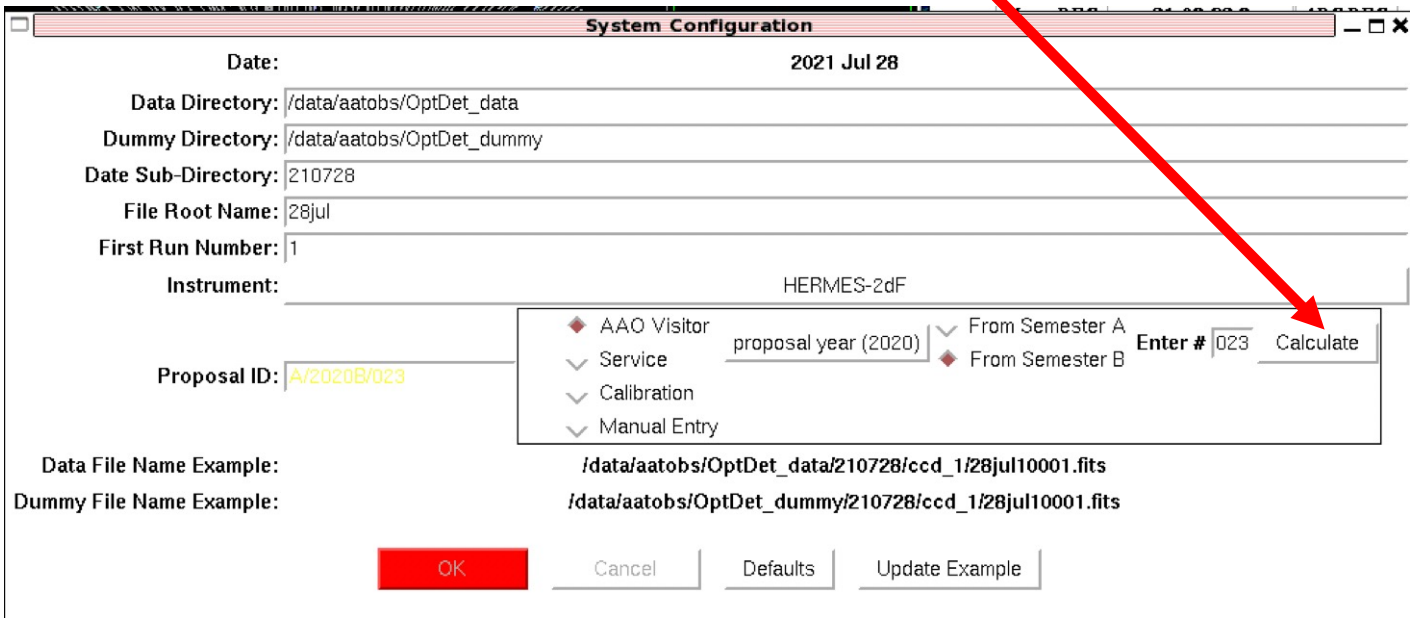


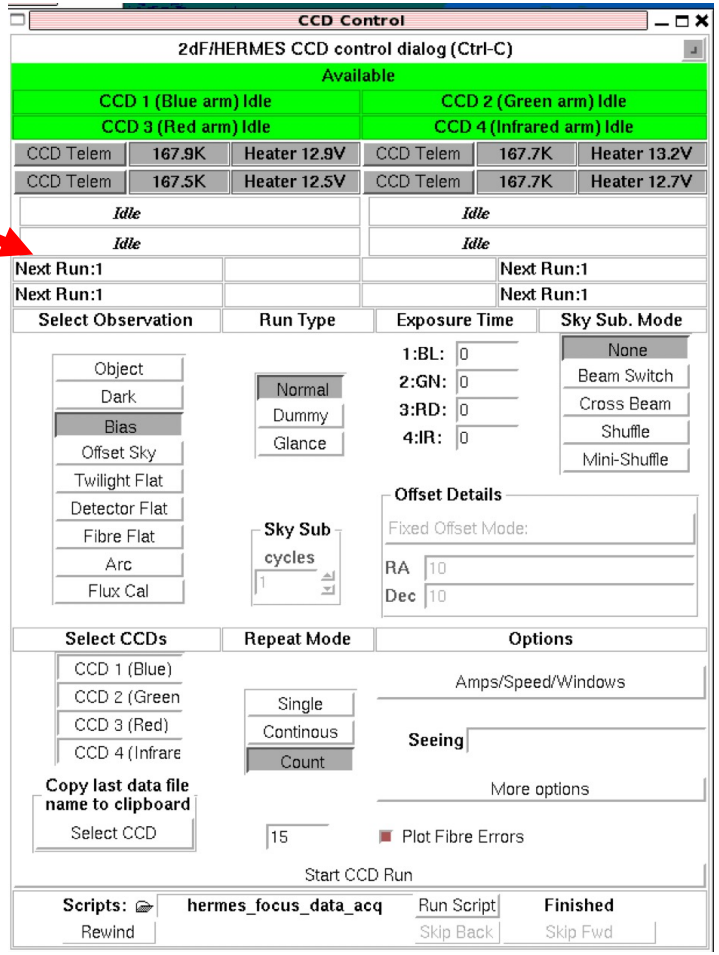




Now you're ready for site ops. Your first action is to check that the date has changed to a new day. Check for the icon below. Click on Go ahead, to see the second window, enter proposal number, click Calculate. If all has gone to plan, CCD window should show "Run 1". If you can't find this window, click on MORE under CCDs on the 2df control task window. Click on *Calculate* and *OK* also.

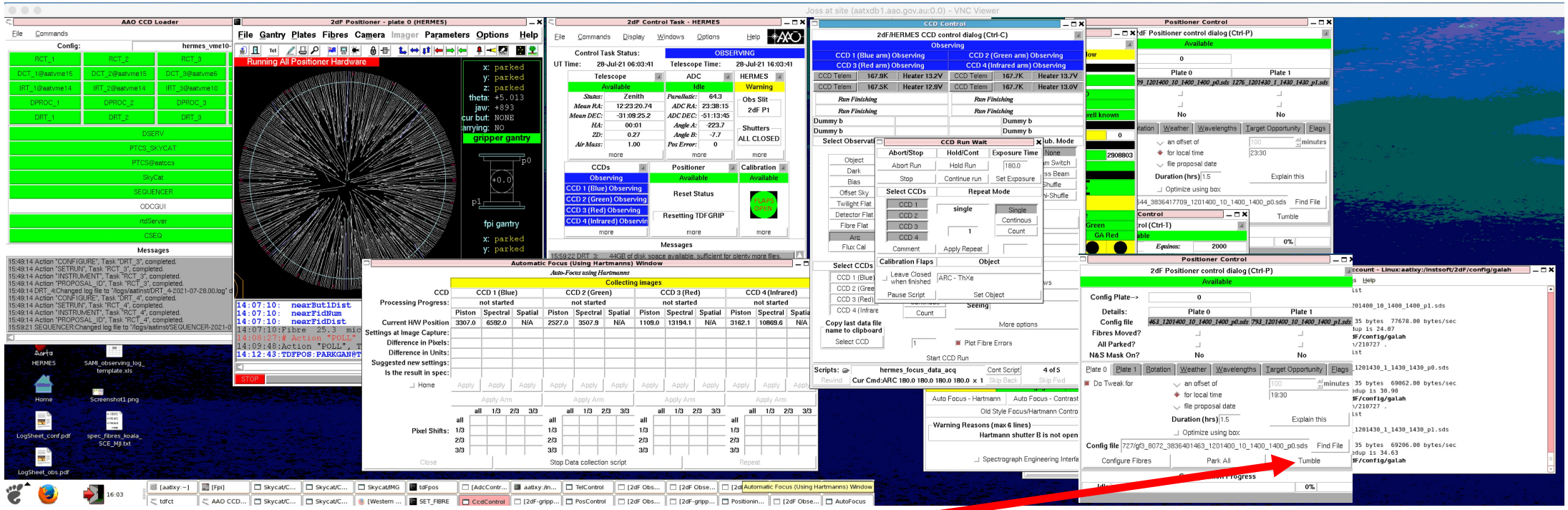






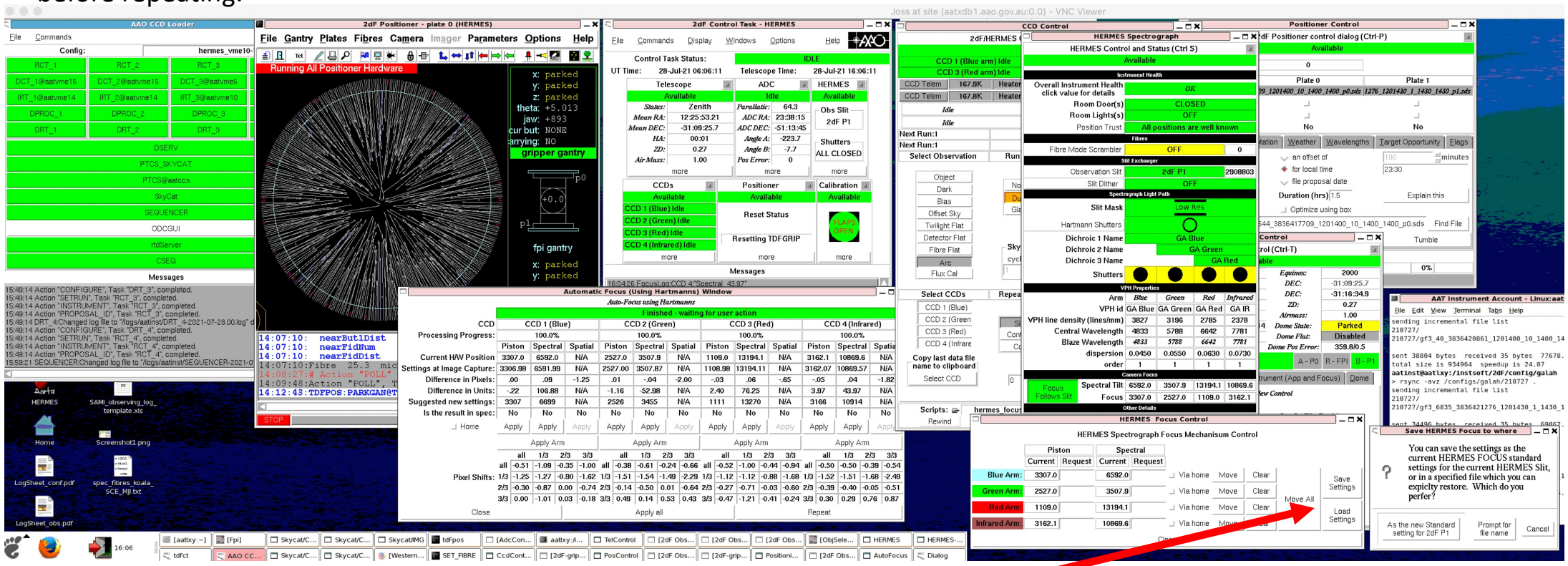
So don't stuff around – you need to get going with the **HERMES Hartmann focus** (pupil divided left right), and do it for both plates. This can take an hour, and no less than 20-30 mins. Make sure CCD window says DUMMY because you don't want to be recording any images. (The first images you will ever take will be biases before twilight ends and then you flip DUMMY to IMAGE – see later slides.)

To bring up Spectrograph window, click MORE under HERMES on 2df control window. So make sure Focus Follows Slit is green, click on Auto Hartmann. (Note that all the control function windows are under MORE on the main windows.)



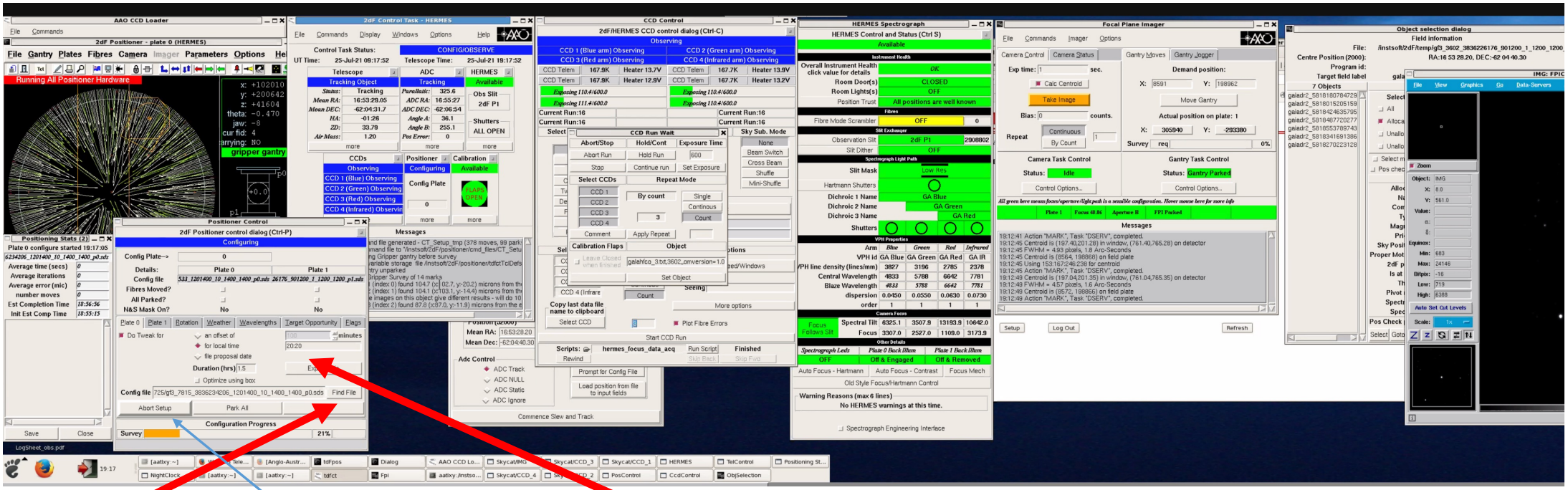
TUMBLE is on the 2df positioner control window, bottom RHS.

The **focus** procedure takes a bunch of exposures and processes them – messaging is shown on the screen. Then the table below fills out. Just worry about Piston and Spectral all coming in under 0.15 pix. If they greatly exceed, click on apply in that column and run the test again. There may be several apply labels to click. The focus will correct to the new offsets before repeating.



ONCE YOU ARE HAPPY, you must <u>must</u> click on Focus Mech and save settings. Focus Mech is bottom of HERMES spectrograph window hidden behind HERMES Focus Control in this view.

Let's get configuring. You need the 2df positioner window (LHS of figure below). So here it says configure plate 0, which means plate 1 was facing the sky ready to observe.



Find file will find the .sds file if you have completed four actions on four screens in the lead-up to this moment – **see slide 11**. ***Set the expected local time of observation and duration***, e.g. 18:30, 2 hours (never less than 1 hour). *Fetch Weather Data* before you configure field. ***Configure fibres is this button before Abort message.*** In an emergency, you can stop and start this operation – talk to the NA or technician if a mistake is made. 2df configure has problems at times and they know what to do. You will see red flash up all over one of the consoles if it fails for any reason, and the 2df positioner graphic (top LHS) will appear to freeze. If your configured field is in **recent** past, say, 18:30, you can configure for UT time 19:30 and it will correct.

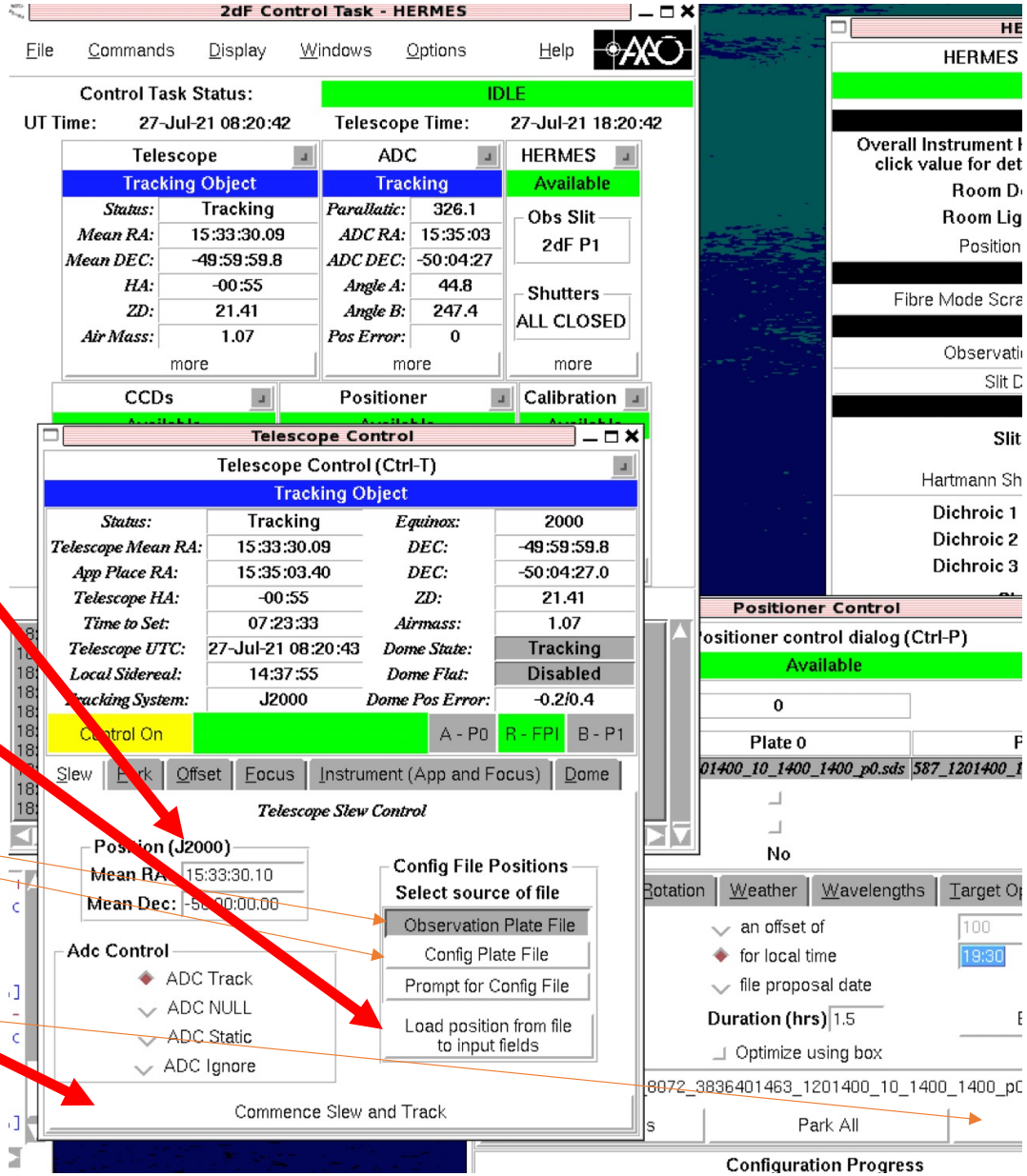
Slewing & Focussing telescope

Working with the NA, slew to the first field position to get ready for focusing the telescope on sky. *But first…*

Be sure to check the Mean RA and Dec is what you copied from Terminal 1 for this star into the logs.

You have two choices, i.e. to go to the field position that was configured and is now pointing at the sky, OR to go to the field position that was just configured and is looking back at the telescope. Try clicking on both *Plate File* options followed by *Load position from file* to see which one looks right. If the latter, you need to slew followed by a tumble to get the newly configured plate looking to the sky.

When ready, *commence slew and track*. You can *tumble* also using button on Positioner Control window.

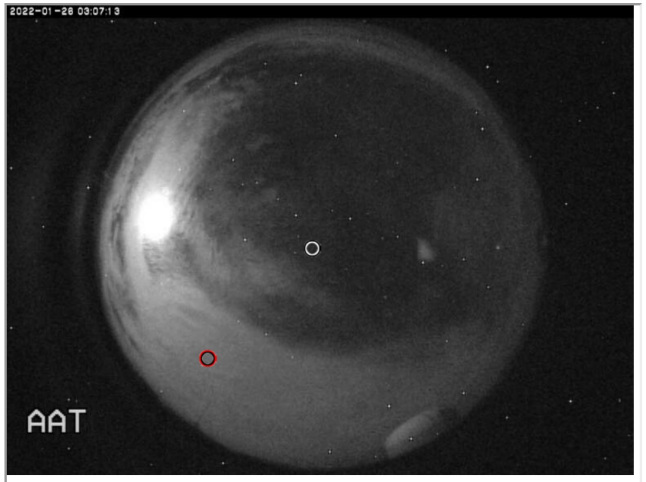


Slewing and tracking, watching as we go…

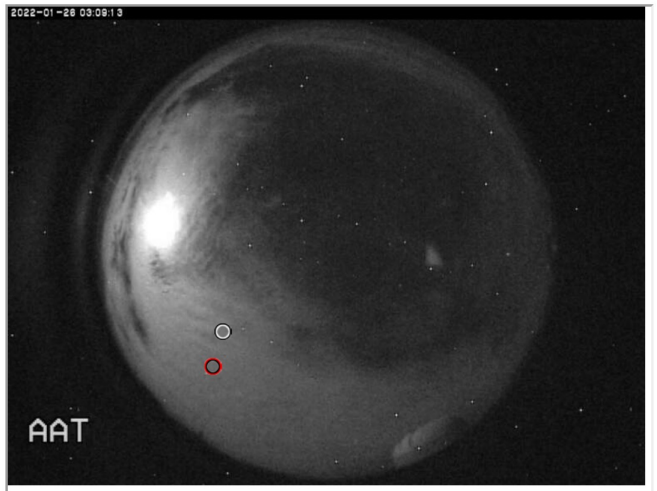
When the NA types in the location of the new field, it comes up as a red circle on the all-sky camera. There's a lot to learn from this.

Here, you see that zenith is clear (where telescope is pointing, shown as a white circle). You can also see the location of the moon.

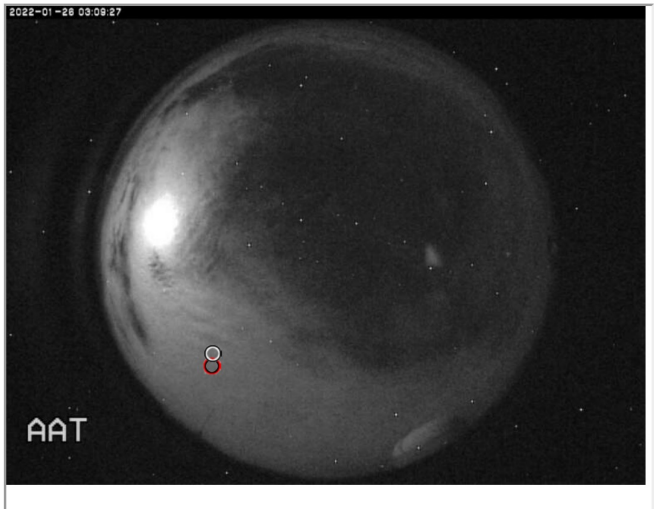
Note the airmass is about 1.45 at the target's current position. Through the night, the target's airmass dropped to about 1.2 at best.



Images from AAT cloud cam.



Slewing action



Once on target, talk to the NA. Say you are finding a star for focus. Use the **FPI window** as shown.

- Under *Commands*, click on *Select Object* and a long list of stars will be offered to you. Click on *Allocated* and *Fiducial* as shown. Click on the last star in the LHS list (Chen's trick) so that you remember this is the one you selected later. Now *Goto RA/Dec*.

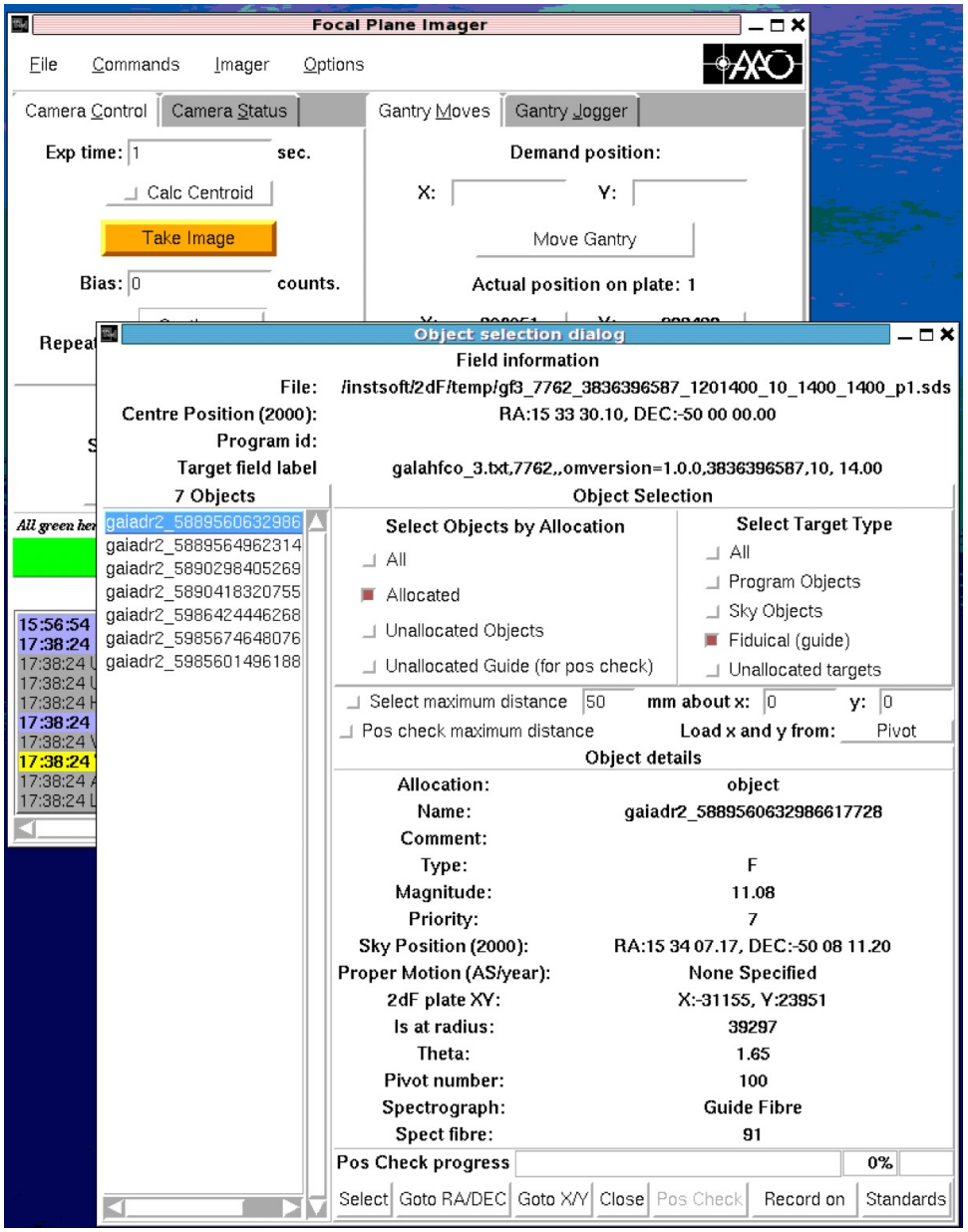
- Turn off *Calc Centroid, Continuous* and *Take Image*. If PSF is bad and good seeing expected, try fainter star from list, shorter exp., in case image saturated.

- CTRL & click on star centroid. SHIFT & click to draw box.

- Under *Commands*, click on *Focus Telescope*…

A good result is on the next slide. If not good, you can always repeat or accept the original setting. This is a working relationship with the NA, so do communicate clearly.

MOST IMPORTANT: once happy, *Park Gantry* under Gantry Control Task Options, otherwise you're blocking light from sky. I suggest you place a post-it note on your screen which says "Have you parked the gantry?" The NA notices when returning to guide star.



A good telescope focus

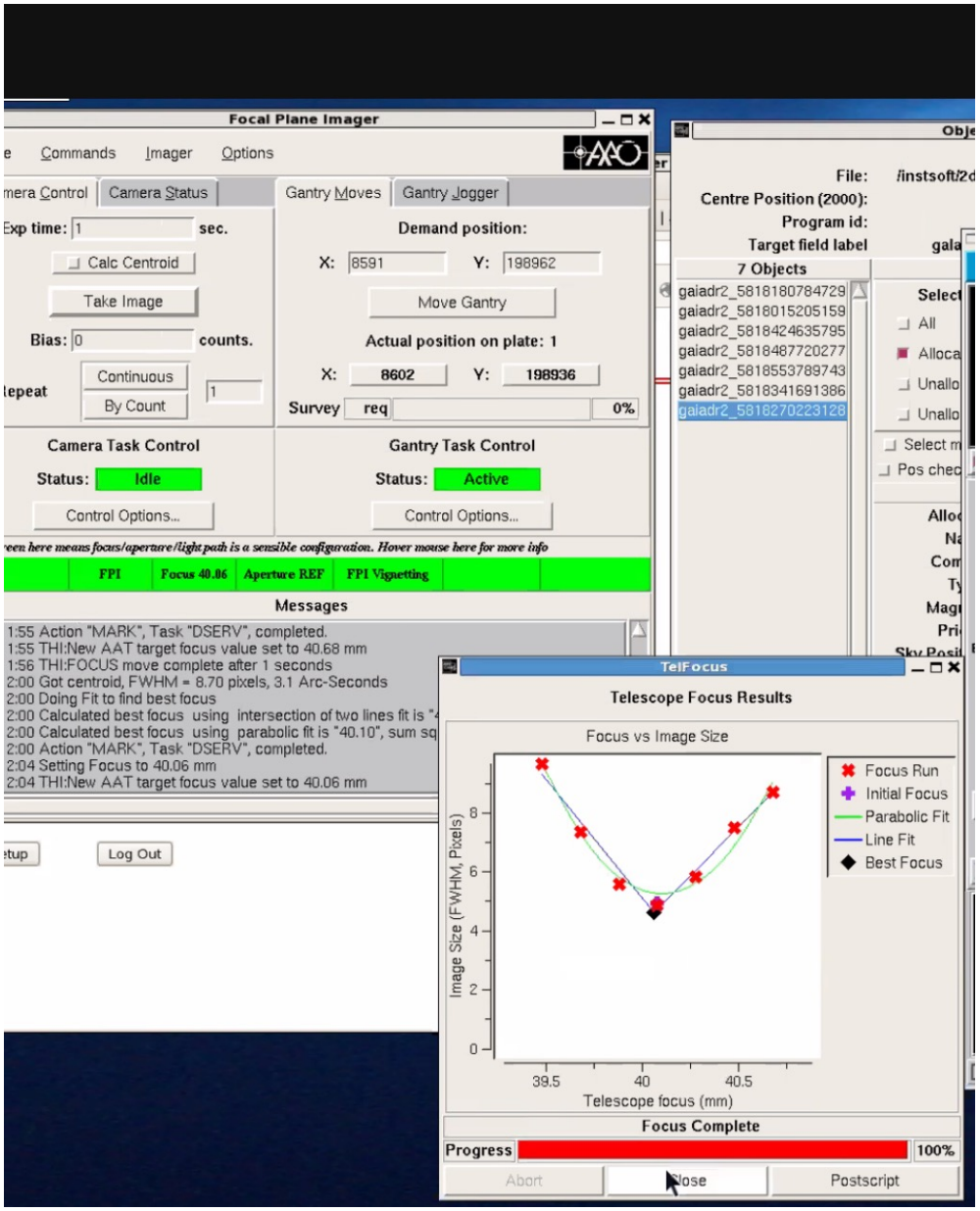
Once you are happy, get a seeing measurement by clicking on *Continuous* and *Calc Centroid, Take Image*.

You can kill this by flipping buttons back.

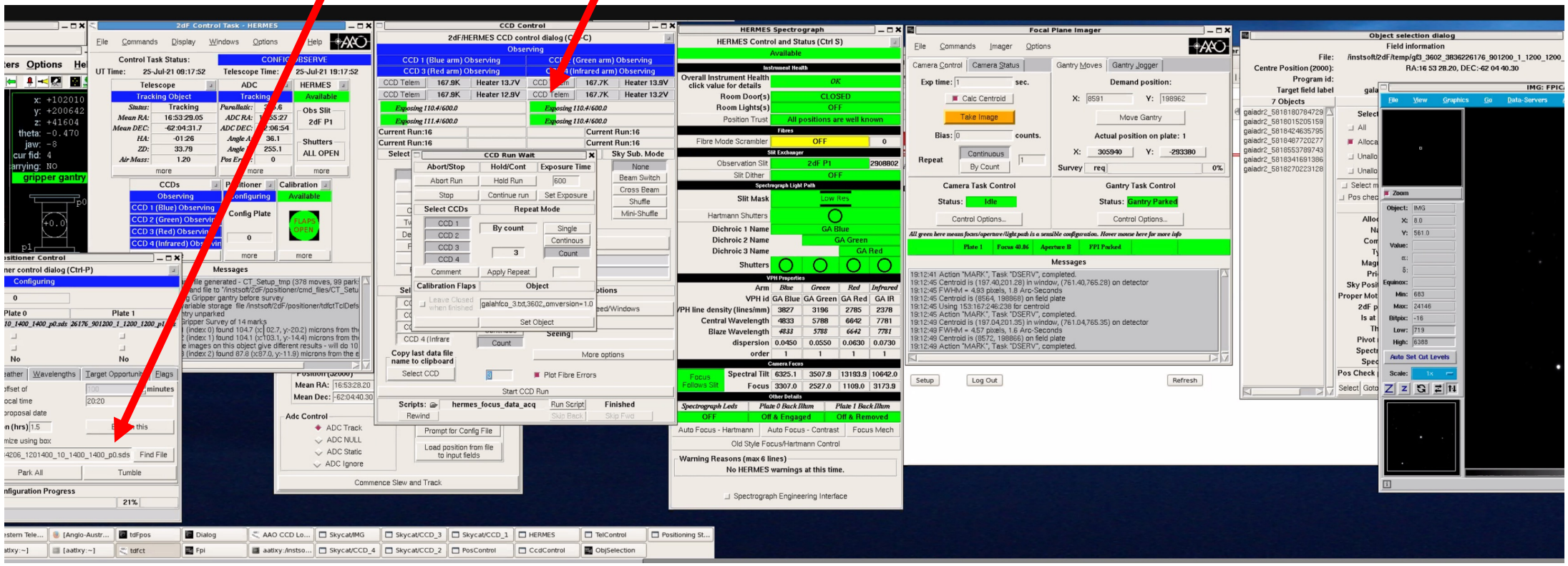
Park Gantry !!!

Why do you care? Remember Sarah's maxim that if the seeing is over 2.5", which of course never happens, you need to double the number of images for each field. If it's much over 3", well…

Rotation – by the way, if the NA requests a rotation check of the field on the sky, go to the 2df positioner control window, click on *Rotation* tab, then *Clone to NA*. They will clone back to you when ready. It only takes a few minutes.



Let's get observing. You need the 2df positioner control window. Now slew to your first field; then ready for exposures in sets of three. This is what it looks like for GALAH bright fields at the start of the night once you're under way. Your other plate should already be configured and ready at the start. Later, when you're exposing on regular GALAH fields, you have *plenty of time* to configure the plate that's not observing, and that action takes place concurrently. If the 2df positioner fails, be sure to complete the existing set first. Don't interrupt it.



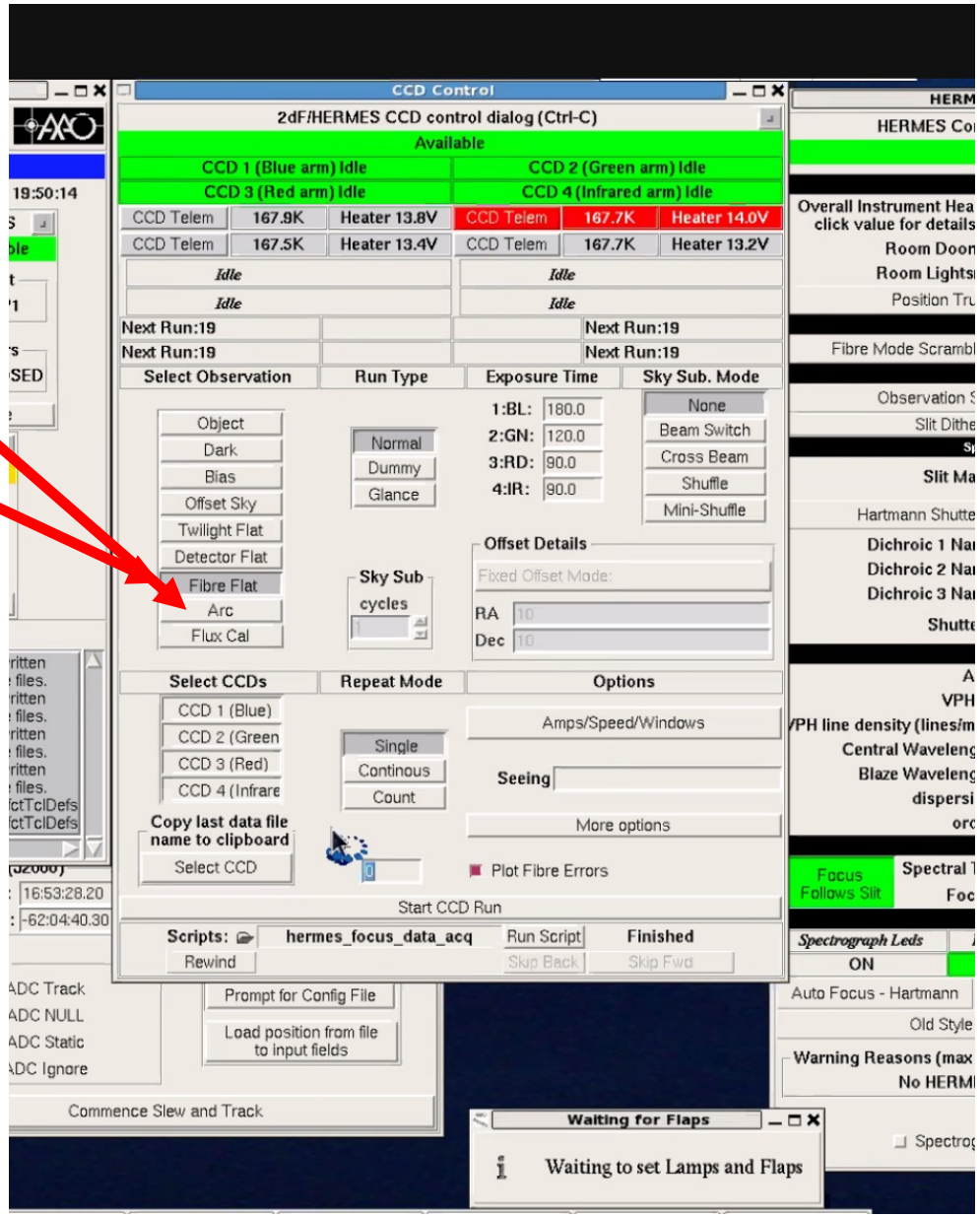
After 3+ GALAH fields have been observed…

Don't forget the *fibre flatfield* followed by the *arc*. The exposure times and buttons are set for you once you click on these.

Note that the CCD run count is correct, and keep updating the observing logs in slide 9.

There is a strange little text file you need to keep updating as well, but we can do that towards the end of the night, all in one go. More later.

To speed up the process, when you get the question "leave flaps closed when finished?" you say YES for fibre flat, and NO for arc.



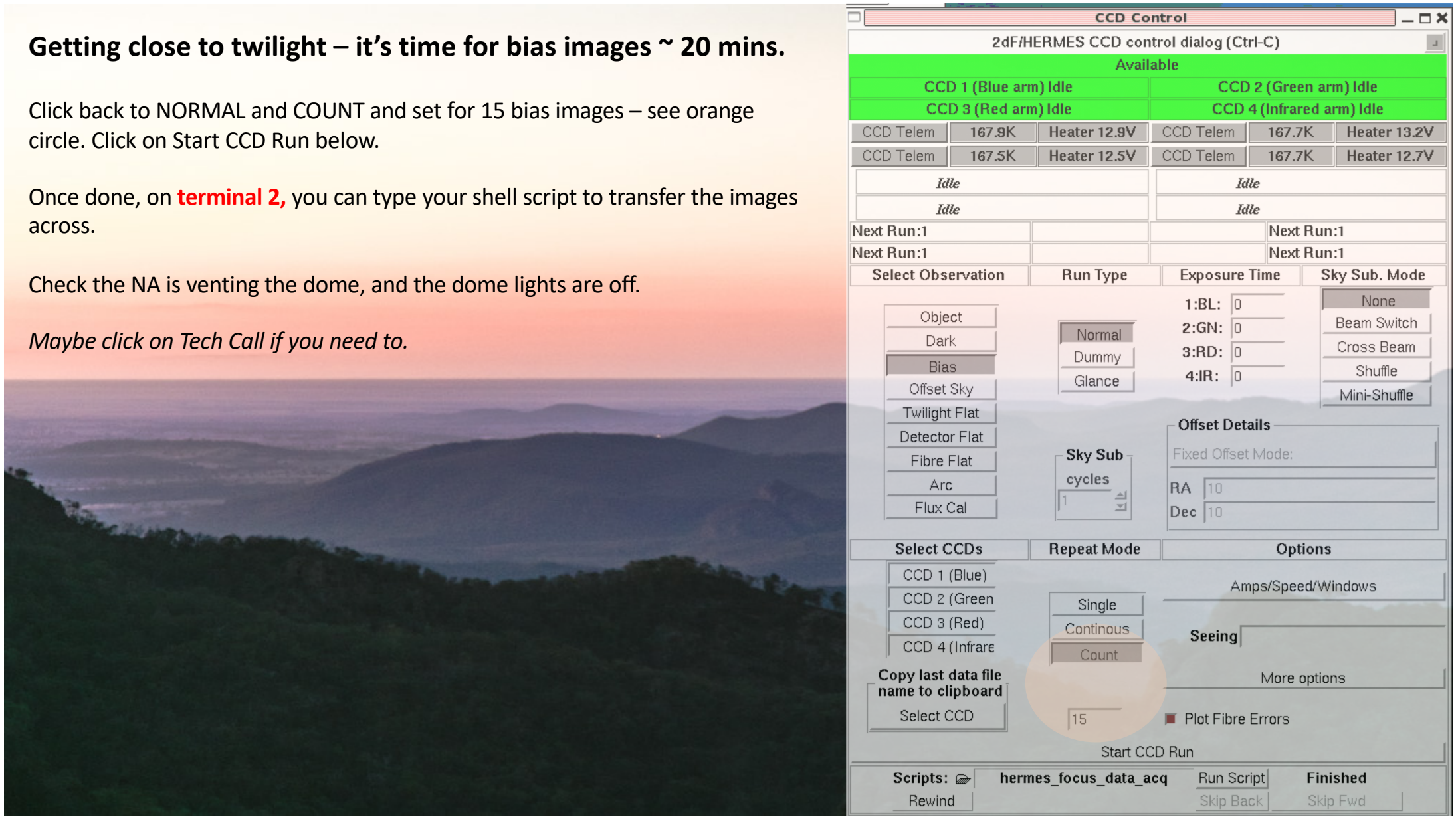
Getting close to twilight – it's time for bias images ~ 20 mins.

Click back to NORMAL and COUNT and set for 15 bias images – see orange circle. Click on Start CCD Run below.

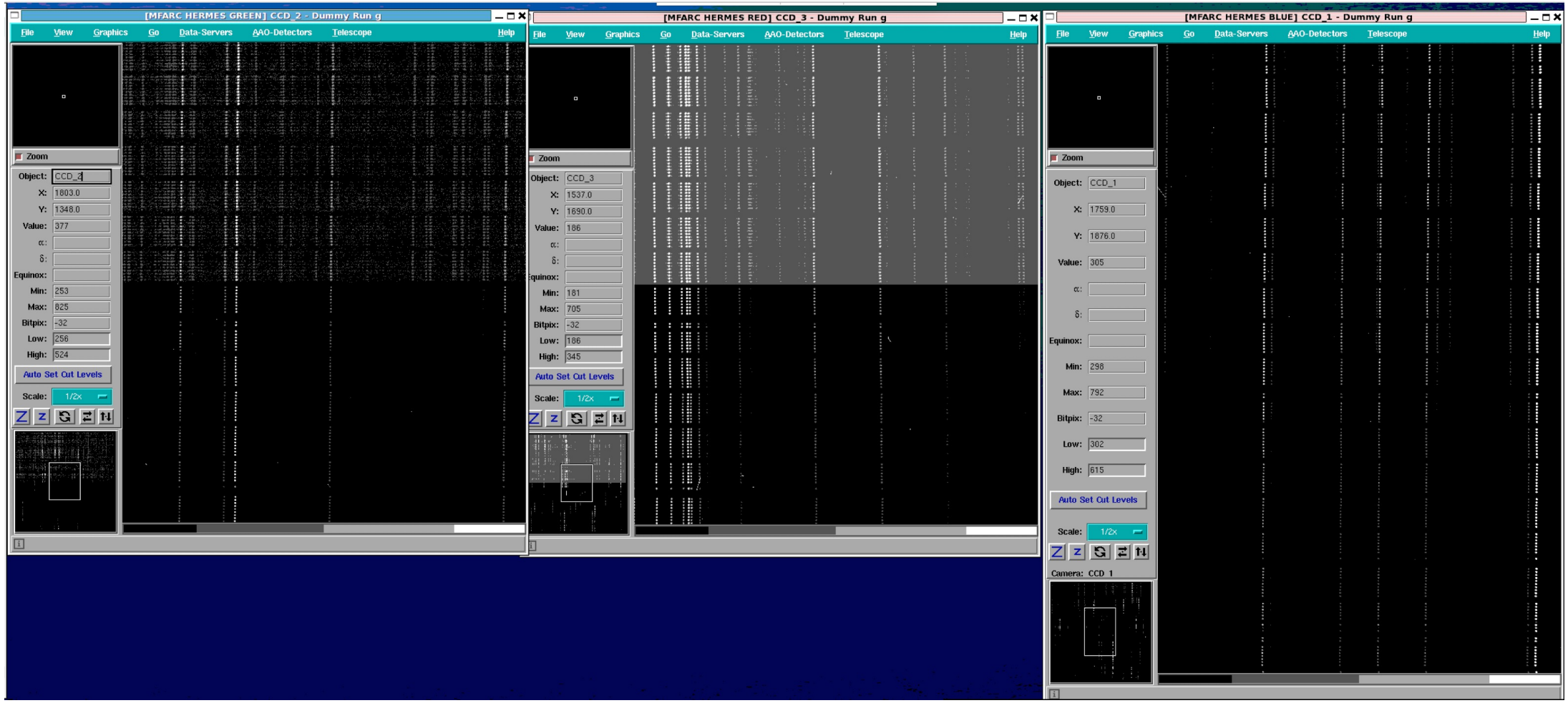
Once done, on **terminal 2,** you can type your shell script to transfer the images across.

Check the NA is venting the dome, and the dome lights are off.

Maybe click on Tech Call if you need to.



4 CCD display windows and FPI display window. If you lose any of these, close the ones that remain. Then go to the AAO console in the VNC window. Run “skycat”. The five windows pile up over each other (this caught me out!) so separate them on the far RHS of the VNC display. I am showing arc observations in this particular example.



In the early morning hours, say, 3 a.m., when you're not functioning as well, here's a boring job you need to do.

Copy a **comments file** from a previous night and update it to reflect the observing log for the night. At the end of observing, be sure to get the complete number of files right, or **obsman1.py –update** (below) will fail.

You can do this in Terminal 2. Look at the default file in

/home/galah/survey/210727/comments/.

and update as shown on the RHS.

comments_210731.txt

```
#fields=[runno, obstatus, seeing_min, seeing_max, comment]
1,1,0,0,bias
2,1,0,0,bias
3,1,0,0,bias
4,1,0,0,bias
5,1,0,0,bias
6,1,0,0,bias
7,1,0,0,bias
8,1,0,0,bias
9,1,0,0,bias
10,1,0,0,bias
11,1,0,0,bias
12,1,0,0,bias
13,1,0,0,bias
14,1,0,0,bias
15,1,0,0,bias
16,1,1.8,2.8,null
17,1,1.8,2.8,null
18,1,1.8,2.8,null
19,1,1.8,2.8,null
20,1,1.8,2.8,null
21,1,1.8,2.8,null
22,1,0,0,flat
23,1,0,0,arc
24,1,1.8,3.8,null
25,1,1.8,3.8,null
26,1,1.8,3.8,null
27,1,1.8,3.8,null
28,1,1.8,3.8,null
29,1,1.8,3.8,null
30,1,0,0,flat
31,1,0,0,arc
32,1,1.8,4.8,null
33,1,1.8,4.8,null
34,1,1.8,4.8,null
35,1,1.8,4.8,null
36,1,1.8,4.8,null
37,1,1.8,4.8,null
38,1,0,0,flat
39,1,0,0,arc
```

Twilight approaches and there are things to do each night at the end of observing.

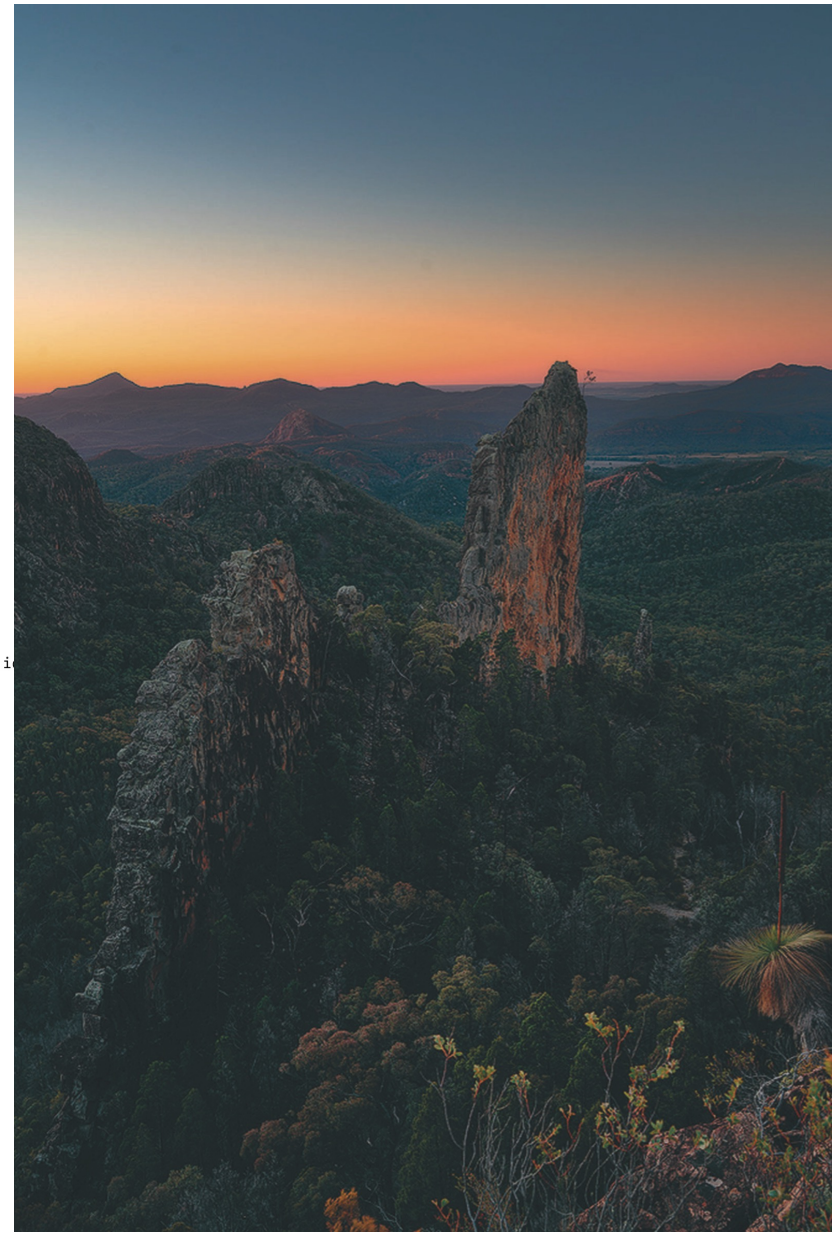
- Go to Terminal 2, and run the shell script one last time. Everything needs to be moved across.

- Go to Terminal 1 and ensure you are in obsmanager/current.

  - ./obsman1.py –update

```
Last login: Wed Jul 28 00:52:46 2021 from 192.231.166.201
galah@galah-obs:~$
galah@galah-obs:~$ /obsman1.py -update
-bash: /obsman1.py: No such file or directory
galah@galah-obs:~$ cd obsmanager/current
galah@galah-obs:~/obsmanager/current$ ./obsman1.py -update
/home/galah/.local/lib/python2.7/site-packages/pyfits/__init__.py:22: PyFITSDeprecationWarning: PyFITS is deprecated, please use astropy.i
  PyFITSDeprecationWarning)  # noqa
Updating observed fields for date, 210727
7762 3836396587 gf3_7762_3836396587_1201400_10_1400_1400_p1
7762 3836396587 gf3_7762_3836396587_1201400_10_1400_1400_p1
7762 3836396587 gf3_7762_3836396587_1201400_10_1400_1400_p1
-1 3836396587 gf3_7762_3836396587_1201400_10_1400_1400_p1
-1 3836396587 gf3_7762_3836396587_1201400_10_1400_1400_p1
8072 3836401463 gf3_8072_3836401463_1201400_10_1400_1400_p0
8072 3836401463 gf3_8072_3836401463_1201400_10_1400_1400_p0
8072 3836401463 gf3_8072_3836401463_1201400_10_1400_1400_p0
-1 3836401463 gf3_8072_3836401463_1201400_10_1400_1400_p0
-1 3836401463 gf3_8072_3836401463_1201400_10_1400_1400_p0
8350 3836410793 gf3_8350_3836410793_1201400_10_1400_1400_p1
8350 3836410793 gf3_8350_3836410793_1201400_10_1400_1400_p1
8350 3836410793 gf3_8350_3836410793_1201400_10_1400_1400_p1
-1 3836410793 gf3_8350_3836410793_1201400_10_1400_1400_p1
```

  - ./obsman_report.py –wiki 210727 (get right directory)
  (see next slide)



```
galah@galah-obs:~/obsmanager/current$ ./obsman_report.py -wiki 210727
/home/galah/.local/lib/python2.7/site-packages/pyfits/__init__.py:22: PyFITSDeprecationWarning: PyFITS is deprecated, please use astropy.io.fits
  PyFITSDeprecationWarning)  # noqa
Printing wiki observation log------
---++++2021 Jul 27- GALAH Survey
Low resolution.
*Field_ID* | *RunNo* | *exp* | *RA (hhmmss)* | *Dec (ddmmss)* | *Plate* | *Ob_status* | *Min Seeing* | *Max Seeing* | *Comment* |
:------------|:----------|:-------|:--------------|:-----------|:---------|:--------------|:---------------|:---------------|:-----------|
    Bias-gf3_7762_3836396587_1201400_10_1400_1400_p1       |   1- 15|          0,0,0,0| 14 17 48.55|-31 10 35.1|1| 1| 0.0"| 0.0"|                 bias|
  Object-gf3_7762_3836396587_1201400_10_1400_1400_p1       |  16- 18|            600x3| 15 33 30.17|-49 59 51.9|1| 1| 1.8"| 1.8"|                    |
    Flat-gf3_7762_3836396587_1201400_10_1400_1400_p1       |  19    |    180,120,90,90| 15 33 30.12|-49 59 52.1|1| 1| 1.8"| 1.8"|                 flat|
     Arc-gf3_7762_3836396587_1201400_10_1400_1400_p1       |  20    |  180,180,180,180| 15 33 30.09|-49 59 52.0|1| 1| 1.8"| 1.8"|                  arc|
  Object-gf3_8072_3836401463_1201400_10_1400_1400_p0       |  21- 23|           1800x3| 16 34 56.28|-37 59 57.6|0| 1| 2.0"| 2.0"|                    |
    Flat-gf3_8072_3836401463_1201400_10_1400_1400_p0       |  24    |    180,120,90,90| 16 34 56.09|-37 59 57.6|0| 1| 2.0"| 2.0"|                 flat|
     Arc-gf3_8072_3836401463_1201400_10_1400_1400_p0       |  25    |  180,180,180,180| 16 34 56.08|-37 59 57.7|0| 1| 2.0"| 2.0"|                  arc|
  Object-gf3_8350_3836410793_1201400_10_1400_1400_p1       |  26- 28|           1800x3| 18 34 28.13|-27 59 52.4|1| 1| 1.7"| 2.0"|                    |
    Flat-gf3_8350_3836410793_1201400_10_1400_1400_p1       |  29    |    180,120,90,90| 18 34 27.86|-27 59 50.9|1| 1| 1.7"| 2.0"|                 flat|
     Arc-gf3_8350_3836410793_1201400_10_1400_1400_p1       |  30    |  180,180,180,180| 18 34 27.86|-27 59 50.8|1| 1| 1.7"| 2.0"|                  arc|
  Object-gf3_544_3836417709_1201400_10_1400_1400_p0        |  31- 36|           1800x6| 20 34 31.10|-26 35 40.1|0| 1| 1.7"| 2.0"|                    |
    Flat-gf3_544_3836417709_1201400_10_1400_1400_p0        |  37    |    180,120,90,90| 20 34 30.95|-26 35 39.1|0| 1| 1.7"| 2.0"|                 flat|
     Arc-gf3_544_3836417709_1201400_10_1400_1400_p0        |  38    |  180,180,180,180| 20 34 30.97|-26 35 39.2|0| 1| 1.7"| 2.0"|                  arc|
  Object-gf3_6835_3836421276_1201430_1_1430_1430_p1        |  39- 42|           1800x4| 23 37 03.85|-51 20 54.6|1| 1| 1.7"| 2.0"|                    |
    Flat-gf3_6835_3836421276_1201430_1_1430_1430_p1        |  43    |    180,120,90,90| 23 37 03.56|-51 20 53.9|1| 1| 1.7"| 2.0"|                 flat|
     Arc-gf3_6835_3836421276_1201430_1_1430_1430_p1        |  44    |  180,180,180,180| 23 37 03.57|-51 20 54.1|1| 1| 1.7"| 2.0"|                  arc|
Printing wiki field log-----------------------------------
| gf3_7762_3836396587_1201400_10_1400_1400_p1|   15 33 30.17|-49 59 52.6| 210727|                600x3|  16-18 |  1|  1| 1.80"-1.80"|
Number of targets for gf3_7762_3836396587_1201400_10_1400_1400_p1 : 349

| gf3_8072_3836401463_1201400_10_1400_1400_p0|   16 34 56.18|-38 00 00.3| 210727|               1800x3|  21-23 |  0|  1| 2.00"-2.00"|
Number of targets for gf3_8072_3836401463_1201400_10_1400_1400_p0 : 346

| gf3_8350_3836410793_1201400_10_1400_1400_p1|   18 34 27.99|-27 59 54.1| 210727|               1800x3|  26-28 |  1|  1| 1.70"-2.00"|
Number of targets for gf3_8350_3836410793_1201400_10_1400_1400_p1 : 349

| gf3_544_3836417709_1201400_10_1400_1400_p0|   20 34 31.47|-26 35 44.1| 210727|               1800x6|  31-36 |  0|  1| 1.70"-2.00"|
Number of targets for gf3_544_3836417709_1201400_10_1400_1400_p0 : 346

| gf3_6835_3836421276_1201430_1_1430_1430_p1|   23 37 04.04|-51 20 55.8| 210727|               1800x4|  39-42 |  1|  1| 1.70"-2.00"|
Number of targets for gf3_6835_3836421276_1201430_1_1430_1430_p1 : 348

galah@galah-obs:~/obsmanager/current$
jhawthorn@AC02DT3GNMD6T ~ %
```

The first part goes to Record Observing Log

The second part goes to Record Field Log, do this N times for N targets, just one line.

internal.galah-survey.org/node/add/fieldlog

GALAH GALactic Archaeology with HERMES

Internal Home | Observations | Working Groups | News Items | Calendar | Data | Team | Project Listing

- Observing Schedule
- Procedure
- Observing Logs
- Field Logs
- Record an Observation Log
- RECORD A FIELD LOG

Search

jbland-hawthor

- My account
- Log out
- All Wiki Pages
- Create content
  - Event
  - Field Log
  - News Item
  - Observation Log
  - Project/Paper
  - Create New Wiki Page
  - Data Table
  - Help Request

ld Log

g each field observed. Copy and paste a single field line from obsman_report.py into the Log Entry field below.
YOU MUST CREATE AN INDIVIDUAL LOG FOR EACH FIELD.

Note: please avoid using commas as it makes it difficult to output things as a CSV table.

Log Entry:
Please copy and paste a SINGLE line of text from the obsman_report.py Field output into this section, including pipes.

Field Type: *
Type of field observed. To select multiple categories use the control (Windows) or command (Mac) button.

Survey
Twilight
Bright
K2
Faint High Lat
Dome Flat
Thin/Thick Disk
Globular Cluster
Open Cluster

Number of Targets:
The number of targets on this field (not including guide/sky fibers). This information is available from the Configure program.

Resolution:
Low Resolution

Additional Comments:
Please note any peculiarities or other important information related to this observation.

Website and actions

–

Submitted by Joss Bland-Hawthorn on Wed, 2021-07-28 05:41

Text Name:
gf3_6835_3836421276_1201430_1_1430_1430_p1

Date:
210727

RA:
23 37 04.04

Dec:
-51 20 55.8

Exposure Number:
39-42

Exposure Time:
1800x4

Observation Status:
1

Number of Targets:
348

Resolution:
Low Resolution

Plate:
1

Seeing:
1.70"-2.00"

APPENDICES

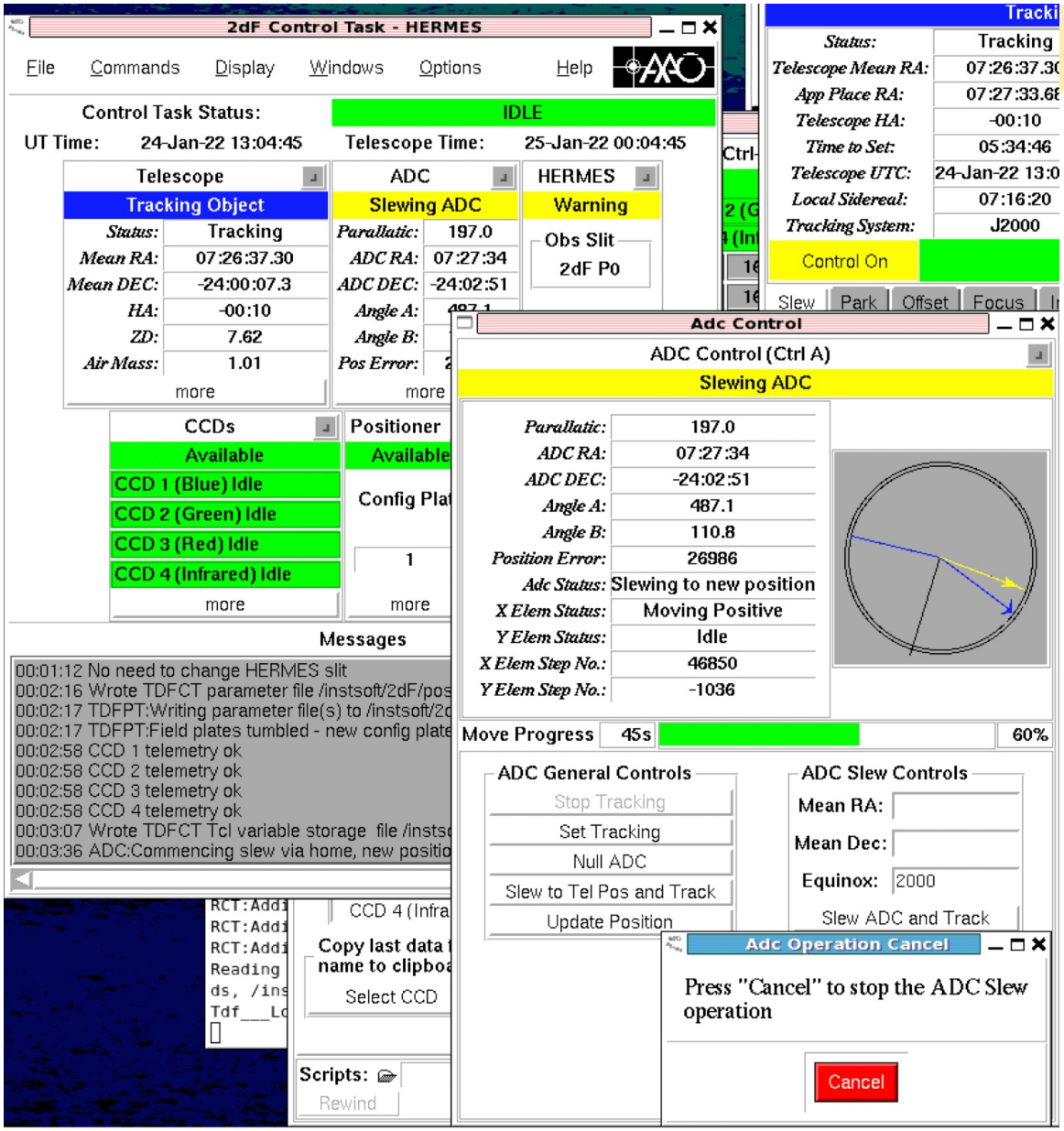
ADC tracking

A manual that illustrates recovery from every conceivable crash is impossible. There are so many subtleties, and site staff know most.

Here's an odd one.

If the system is rebooted, I worry that the ADC is no longer tracking correctly. You can reset and slew the ADC back into position easily. It takes a few minutes – see graphic. Click on MORE under ADC on the 2dFCT window.

This is much like telescope slewing.



Observing with the AAT from Home

13 October 2020 – Chris Lidman

1. Some important reminders first

- Do not share your visitor account details with anyone else
- Access is allowed from 3pm AEST/AEDT on the first day of your run
- Make verbal contact (e.g. using zoom) with the afternoon shift technician before trying to access the instrument

2. Contacting site on the day of your run

With up to six remote observing sites connecting to the telescope console from across Australia, and several more to come, communication is key for a successful remote observing run. **You are required to contact Site at 3pm on the afternoon of each night (4pm during daylight saving time)**.

A good time at which to notify the afternoon technician of your plans for the next day is when the afternoon technician signs off for the night. You can also contact the afternoon technician using the technician call button, the AAT building PA system (6842 6351), or the SSO emergency mobile (0427 685 288). If you use the PA system, wait for the beep to end before speaking. The SSO emergency mobile is carried by the afternoon shift technician during the day and the night assistant at night.

Additional information on remote observing is available from the AAT web pages:
https://aat.anu.edu.au/science/observing/remote-observations

3. Important Numbers, Addresses and Locations

AAT console Polycom IP: 192.231.166.51
AAT console phone: 6842 6279
AAT observer's desk: 6842 6276
AAT public address system (wait for the beep to end before speaking): 6842 6351
SSO emergency mobile: 0427 685 288
AAT VPN: aat-vpn.anu.edu.au
VNC desktop used for observing: aatxdb1.aao.gov.au, IP 10.88.80.26[1]
aatlxe: 10.88.90.24
aatlxh: 10.88.90.25
Weather: http://aat-ops.anu.edu.au/AATdatabase/met.html
Robot viewer: http://10.88.90.80/view. We advise against running this from a browser that is started on aatlxy, as this seems to slow down the VNC connection.

[1] IP addresses that start with 10 (e.g. 10.88.90.80) are only available within the AAT network.

4. Setting up yourself before the run

- Send us a request that you wish to observe remotely from home using the AAT Visitor Form: https://aat.anu.edu.au/science/observing/travel/overview
- Once approved, you will receive the details of an account that will enable you to VPN into the AAT network and ssh into AAT computers. (Note that these functions have the same account name usually of the form 'visitor[n]', VPN access has been added to the system that has been in use for many years.)
- Install VPN and VNC clients on your laptops. We recommend that you use Cisco's AnyConnect Security Mobility Client and Real VNC's VNC viewer.
- When using 2dF, screen real-estate is an important factor. At the very least, you should have two screens. This will enable you to see half of the four screens. One can then scroll to see the other half as required. Recall that 2dF windows can pop up in unexpected places.
- If you are using the NBN, check that there are no scheduled maintenance activities that might affect your connection.
- If you have access to two computers it is recommended that you set Zoom up on a different machine to the one you use for controlling the instrument. This is because Zoom will be piped through the VPN otherwise, which will slow the connection somewhat.

5. Connecting

Follow the following sequence.

- Establish communication with the afternoon shift technician via zoom (the polycom is unlikely to be a realistic option if you are observing remotely from home). SSO staff will establish one zoom link per scheduled run. You will be informed of the details once the visitor form is submitted.
- VPN into the AAT network: aat-vpn.anu.edu.au, using the account details you have been given. (If you later have trouble logging in, returning to this page and logging in again serves as a test of the validity of your credentials.)
- VNC into aatxdb1.aao.gov.au, IP 10.88.80.26. If you do not know the password, the afternoon shift technician will give it to you.

6. The end of the night

- Close the VNC window[2]. Under no circumstances, should you log out of aatlxx to aatlxy. The consequences could be grave.
- Log out of the VPN session if you do not plan to run reductions on aatlxh, for example.

[2] The VNC session will be killed by a cron job at 9am, but it is best to close it manually to prevent any unauthorised access.