

## Operating the Telescope

### **Preliminary Work:**

- 1.0 Clear away obstructions from the movement of the telescope such as the ladder tools, chairs, etc. which would hinder the free movement of the telescope.
- 1.1 Place the computer stand in the NE area of the platform.
- 1.2 If cables are needed to run the focuser and/or to a camera install them now.
- 1.3 Remove the dust covers from over the mirror and the top of the telescope.
- 1.4 Disconnect the 4 power cords under the platform.
- 1.5 The hand pad and the dome/ring rotator is located in the top drawer of the cabinet.

### **Starting the Drive Programs**

- 2.0 Turn on the computer. 2.1 Activate Sitech
- 2.2 Sitech will load up the pointing model, If Sitech does not automatically load a pointing model, click on the PXP button (the large box) to open up PXP to load a pointing model. Click on File to open a calibration file and open it.
- 2.3 Click on unpark, a window will pop up stating the telescope in not officially parked do you want to unpark it anyway? Click on yes.  
This is a bug don't worry about it. Dan Gray's humor is showing through this, he won't fix it.
- 2.4 The telescope should start and track automatically, if it doesn't click on start.
- 2.5 Open Carte du Ceil,
- 2.6 On the upper Toolbar click on Telescope, a menu will open, click on connect telescope.
- 2.7 A large box will open, near the bottom there is the button that says connect, click on connect, the small box will turn from red to green.
- 2.8 Carte du Ceil is now connected to Sitech.

## Moving the Telescope

3.0 Always know where the Telescope is going to move to, because the ladder, people, computer, just stuff can be in the way to get hit. We don't want that to happen.

3.1 The telescope can be moved in several ways;

The Hand Pad, through Carte du Ciel (CDC), or using the Sitech controller on the computer screen. Throughout the course of an observing session all three will likely be used.

3.2 The Hand Pad is used to center an object in the eyepiece and then to synchronize Sitech with CDC. Also the Hand Pad moves the Ritchie in order to find an object should the software get lost, or you want to go see things on the moon...

## Observing

4.0 To begin an observing session, click on a bright star, usually the first one to have the courage to show itself, slew the telescope to that star. By clicking on that star.

4.1 On the tool bar is button that looks like a dome with a spark symbol at the side, click on that to move the telescope.

4.2. One can also right click the mouse, this will open up a box menu, go to Telescope then a second box opens where you can click on slew to the object selected. But it is easier to use the 4.1 method.

4.3. On the tool bar under Telescope, slew is also listed. But it is easier to use the 4.1 method.

4.4 When the telescope has stopped slewing, check to see if the object is in the eyepiece, if not, use the hand pad to center the object in the telescope, looking through the finder scope or using the Telrad may assist you to center the object.

4.5 After the object is in the center of the eyepiece sync CDC and Sitech. You may do this by using Carte du Ciel or the Sitech program itself. But it is much easier to use CdC. Sync by clicking on the Doom with the RED dot which in on the upper Tool Bar. A menu will open from Sitech, there are several large boxes, the second from the left says "Simple Offset Int" click on this box, the bottom line says scope is looking West and scope is looking East. Make sure the circle is checked properly. This is important! If it is not checked properly the telescope will act as if it were 12 hours ahead and go in the wrong direction. The correct circle is almost always checked properly by Sitech.

This aligns the drive system to where the Telescope is pointing.

This is also a good time to accurately align the Telrad and the finder scope if needed.

In the space provided in the Tool Bar, type in the name, most of the time the common name will not work, the NGC#, or M# of what you want to observe is usually necessary. Hit the enter button on the key board, click on the slew button and the scope will go to it.

You can also click on the highlighted objects on the screen to go observe them. There are thousands of objects to observe, only a few of them are highlighted on the screen.

It is best to have a list of objects you want to observe before the evenings session. Also the Stellarium Planetarium program is nice and easy to use in conjunction with, but it is not connected to CdC or Sitech, in order to help to figure out what the spelling of star names are to look at next.

## **Eyepieces**

There are some eyepieces in the dome to use with the Ritchie, one is a 36mm 2 inch, it will give a wide field and 76 power which is good to start each night with for synchronizing. Another is a 9 mm and a 14mm for medium power.

## **Cameras**

Members may also use the Mallincam DS16c on the Ritchie. Members using the camera should go to the Mallincam web site and download the users manual and software to run the camera on their own laptop, to familiarize themselves on how to use the DS16c camera. Mallincam software is free of charge.

## **The 4 domes on the menu bar**

On the top menu bar are 4 domes.

Dome with the green or red dot are for connecting CdC and Sitech,

Dome with the plus sign in a circle is for Synchronizing CdC and Sitech.

Dome with the Spark sign is for the slewing of the telescope.

Dome with the slash in red circle is for EMERGENCY STOP! Hopefully this will not be needed.

## **Use of the Handpad**

The lower 5 buttons.

The center button changes the speed of movement of the telescope between Slew is fast, Pan is slow, and Guide is used with astrophotography to move the telescope at extremely slow speed.

The 4 outer buttons control the direction of the telescope movement.

The SPD button turns on the handpad, the hand-pad turns off after 15 minutes of non use. Then you must turn it back on again.

On the back of the hand-pad are the instructions for usage.

## **Shutting Down the Ritchie**

5.0 Disconnect CdC and Sitech, do this by clicking on the telescope button on the menu bar and click on disconnect, the green button will change to red. You may now close CdC. Turn off the Telrad (Important). Remove the eyepiece or the camera, install the top dust cover.

5.1 On the Sitech box, Click on the Stop Button, then click on the Park button, the telescope will now move to its home position, (Vertical). After the telescope is stopped, you can now close Sitech. Install the wooden mirror cover.

5.2 Rotate the dome so the painted lines are aligned, then connect the 4 power cords. The 4 wires have different kinds of plugs, one cannot connect them incorrectly.

5.3 Replace the Hand pad and the Dome/Ring rotator back in the top drawer of the larger cabinet. Cover the monitor and keyboard.

5.4 Last one out close the door.

This may seem like a lot to remember, but after a few evenings it is really easy and a lot of fun.

If one was to want to download Carte du Ciel this is where you would go. [www.ap-i.net/skychart/en/download](http://www.ap-i.net/skychart/en/download)

To read the manual for SiTech this is the place for you.

[www.siderealtechnology.com](http://www.siderealtechnology.com)