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Lightning Shutdown, Short Version

Changes coming out of Downtime 2018

1. We have an "always on" UPS now, which feeds a power strip above BokAux. The Aux computer, the WIFI, BokPOP, and the phones are all plugged into this power strip which means these are now always left on. You can use BokAux now to keep an eye on the weather by pulling up the weather sites bookmarked on the computer in Firefox.
2. BokCCD2 is now the main Azcam computer for both the B&C and 90Prime instruments. We are going to have a spare Azcam Login machine (BokCCD4) in the future. The username and password to get in are the same as before.
3. There is no longer an UPS under the counter feeding console power. There is a new UPS in the black computer rack labeled "Console UPS" To shut this down you press the on/off button and select "Off Immediately" with the OK button. This takes a while to shut off. When you turn it back on using the power button, you must use the arrow keys and OK button to choose "On Immediately" or it will not turn on.
4. The weather computer is now password protected, and the password is posted on the monitor. You turn on the weather computer by pressing the top edge of the left hand corner (it's beveled at a 45 degree angle), of the PC mounted on the wall next to the monitor.

CASS (B&C, WIFIS, SCC) Lightning Shutdown

Complete a "Normal Shutdown" if you have not done so already.

Telescope (for the B&C)

1. Turn off the following:
    1. Gray power supply mounted on the southeast side of the IIS
    2. Bokccd5 mounted on the northeast side of the IIS by pushing in a small round button on the front of the computer.
    3. The blue guider computer mounted on the north side of the IIS.
    4. The guider chiller mounted on the northwest side of the IIS.
    5. The lamp controller on the west side of the instrument next to the grating clamp. This switch is on top of the box and labeled "power".
    6. The IIS motor controller mounted on the southwest side of the IIS, right next to the optoserver (silver box). It is red and black.
2. Unplug everything underneath the telescope that has red tape on it and goes to the orange outlets. There are 10 cords.

Telescope (for other CASS users [WIFIS, SPOL, SCC, PISCES])

1. Make sure everything is turned off and unplugged from orange outlets on the bottom of the telescope
2. Make sure IIS readout and motor controller are turned off and unplugged.

Control Room

1. Turn off upper dome power
2. Turn off dome motor power
3. At the Operators Console (Telescope Control Workstation):
   - Shutdown TCS computer by exiting the TCS program, and selecting "shut down" from the start menu.
   - Shutdown guider computer by selecting "shut down" from the start menu.
   - Turn IIS switch on the front of the console to OFF
   - Turn Dome switch on the front of the console to MANUAL
   - Turn off console
   - Push in emergency stop button on console
   - Unplug dome mic if in use next to AED
4. Observers Workstation
   - Close AzCam program, shutdown Azcam computer from start menu, and once it goes back to the xterm login screen, shut down AzCam Xterm from menu in bottom left hand corner.
   - Close programs on Bart, shutdown Bart from menu at upper righthand corner (It will say Bok Observer if you are using the B&C or any other CASS PI instrument), and once it goes back to the xterm login screen, shut down Bart Xterm from menu in bottom left hand corner.
   - Shut down weather computer by pressing small glowing button on the upper lefthand corner of the computer mounted on the wall next to the weather display monitor.
5. Electronics Computer Rack Area
   - Using the KVM switch make sure all computers in the rack are off (**except BOKPOP, #7**):
     - #2 Bokccd2 Azcam Login (Should already be off)
     - #6 Bart (should already be off)
     - #4 Bokccd4, Spare Azcam Login and #5 Priscilla if in use
   - Turn off beige flat field lamp controller if in use
   - Turn off printer
   - Turn off (3) UPS units in bottom of the rack
   - Note: The CONSOLE UPS powers the Operators Console (TCS, guider, IIS, etc), make sure everything in it is turned off first. You will need to hit the power button, then use the arrow and OK buttons to choose "Off Immediately" or it will not shut down.

Warm Room Cable Closet

1. Unplug (4) plugs with red tape on your right as you enter the door down low
2. Unplug (1) twist lock plug with red tape on the southwest wall
3. Unplug Brandywine NTP Server's Ethernet cable, BNC cable, and power cable on the southwest wall

Second Floor Pier Room

1. Shutoff UPS in rack and unplug
2. Unplug beige power strip

Second Floor Office

1. Unplug power strip from wall
2. Disconnect phone line from fax machine
3. There is a computer tower that sits to the left of the desk. If on, turn off by pushing the power button.

90Prime Lightning Shutdown

Complete a "Normal Shutdown" if you have not done so already

Instrument

1. Unload filter from filter wheel
2. Turn off "90 Prime CCD" and "90 Prime System" rotary switches on black computer rack

Control Room

1. Turn off upper dome power
2. Turn off dome motor power
3. At the Operators Console:
   - Shutdown TCS computer by exiting the TCS program, and selecting "shut down" from the start menu.
   - Shutdown guider computer by selecting "shut down" from the start menu.
   - Turn IIS switch on the front of the console to OFF.
   - Turn Dome switch on the front of the console to MANUAL.
   - Turn off console
   - Push in emergency stop button on console
   - Unplug dome mic if in use next to AED
4. Observers Workstation
   - Close AzCam program, shutdown Azcam computer from start menu, and once it goes back to the xterm login screen, shut down AzCam Xterm from menu in bottom left hand corner.
   - Close programs on Bart, shutdown Bart from menu at upper righthand corner (It will say Primefocus Observer if you are using 90Prime), and once it goes back to the xterm login screen, shut down Bart Xterm from menu in bottom left hand corner.
   - Shut down weather computer by pressing small glowing button on the upper lefthand corner of the computer mounted on the wall next to the weather display monitor.
5. Electronics Computer Rack Area
   - Using the KVM switch make sure all computers in the rack are off (**except BOKPOP, #7**):

- #2 Bokccd2 Azcam Login (Should already be off)
- #6 Bart (should already be off)
- #4 Bokccd4 Spare Azcam Login and #5 Priscilla if in use
  - Turn off black flat field lamp controller if in use
  - Turn off printer
  - Turn off (3) UPS units in bottom of the rack
  - Note: The CONSOLE UPS powers the Operators Console (TCS, guider, IIS, etc), make sure everything in it is turned off first. You will need to hit the power button, then use the arrow and OK buttons to choose "Off Immediately" or it will not shut down.

Warm Room Cable Closet

1. Unplug (4) plugs with red tape on your right as you enter the door down low.
2. Unplug (1) twist lock plug with red tape on the southwest wall.
3. Unplug Brandywine NTP Server's Ethernet cable, BNC cable, and power cable on the southwest wall.

Second Floor Pier Room

1. Shutoff UPS in rack and unplug.
2. Unplug beige power strip.

Second Floor Office

1. Unplug power strip from wall.
2. Disconnect phone line from fax machine.
3. There is a computer tower that sits to the left of the desk. If on, turn off by pushing the power button.

Cold Start up-Coming out of Lightning Shutdown

Second Floor Office (optional)

1. Plug in power strip.
2. Connect phone line to fax machine.
3. Turn on the computer tower to the left of the desk by pressing the power button.

Second Floor Pier Room

1. Plug in UPS in rack and turn on.

2. Plug in beige power strip.

Warm Room Cable Closet

1. Plug in (4) plugs with red tape on your right as you enter the door down low.
2. Plug in (1) twist lock plug with red tape on the southwest wall.
3. Plug in Brandywine NTP Server's Ethernet cable, BNC cable and power cable on the southwest wall.

Control Room

- Electronics Computer Rack Area
    1. Turn on (3) UPS units in bottom of the rack. On the new Console UPS: You will need to hit the power button, then use the arrow and OK buttons to choose "On Immediately" or it will not turn on.
    2. Turn on Bokpop (it should already be ON)
    3. Turn on Bart
    4. Turn on BokAux (should already be on)
    5. Turn on printer
    6. **90Prime users**
        - Turn on BokCCD2
        - Turn on two rotary switches labeled "90Prime CCD" and "90Prime System"
    7. **B&C users**
        - Turn on BokCCD2
- Observers Work Station
    1. Turn on Azcam Xterm, log into BokCCD2 if using B&C or 90Prime. Start the Azcam program.
    2. Start Bart Xterm, login either as Primefocus Observer if you're using 90Prime, or Bok Observer with any other instrument using appropriate passwords. Start programs on Bart.
    3. Start weather computer by pressing button on top of the upper left edge. Enter the password posted on the monitor.
- At the Operators Console (Telescope Control Workstation):
    1. Make sure the CONSOLE UPS is plugged in and turned ON (should be done already if the above steps were followed)
    2. Pull out emergency stop button on console
    3. Turn on TCS computer
    4. Start About Time program from Start Menu
        - Hit set time, get the time as close to 0ms as possible
        - Click on Hide, **not exit**
    5. Start TCS program
    6. Double check RA on weather computer to make sure it matches the TCS RA reading. If not, restart Telcom.
    7. Start guider computer if you're using it
    8. Turn IIS switch to ON if you're using it
    9. Turn dome switch to AUTO
    10. Turn on console
    11. Turn on Upper Dome Power and Dome Motor Power

For B&C users (bottom of the telescope)

1. Plug in everything underneath the telescope that has red tape on it and goes to the orange outlets. There are 10 cords.
2. Turn on the following:
   1. Gray power supply mounted on the southeast side of the IIS
   2. Bokccd5 mounted on the northeast side of the IIS by pushing in a small round button on the front of the computer. You might need the small screwdriver from the toolboard to push it in hard enough.
   3. The blue guider computer mounted on the north side of the IIS.
   4. The guider chiller mounted on the northwest side of the IIS.
   5. The lamp controller on the west side of the instrument next to the grating clamp. This switch is on top of the box and labeled "power".
   6. The IIS motor controller mounted on the southwest side of the IIS, right next to the optoserver (silver box). It is red and black.