DVCS3/GMp How-To (for shift checklist)

This list can be retrieved in .pdf format at:
https://hallaweb.jlab.org/wiki/index.php/Instructions_for_shift_takers

Quantity	**Where do I find it?**
Beam Energy (GeV)	This information can be found in the ***Hall A General Tools***. It is in the ***Beamline*** box.
Beam energy lock on? Yes/No	This information can be found in the ***Hall A General Tools***. It is in the ***Beamline*** box below ***BPMB X***.
Beam current (μA)	In the menu at the top of the EPICS computer screen, select ***Hall A*** and then select ***BCM***. Finally, select ***Current Monitor***.
Raster on? Yes/No	Currently, there is nothing there to check this, but there is supposed to be something.
Fast feedback on? Yes/No	Go to the Hall A General Tools on the EPICS computer and find ***Beamline***. The information is contained directly below the ***BPMB*** Y box. It will either show RF on or RF off.
Spot size X/Y (mm)	Run the ***SpotL*** and ***SpotR*** command on a-onl@adaq1 machine. See instructions here: *https://hallaweb.jlab.org/wiki/index.php/Spot_check*
Beam Position Monitor X/Y (mm) A	Go to the Hall A General Tools on the EPICS computer and find ***Beamline***. The information contained in ***BPMA*** for X and Y is what is needed here.
Beam Position Monitor X/Y (mm) B	Go to the Hall A General Tools on the EPICS computer and find ***Beamline***. The information contained in ***BPMB*** for X and Y is what is needed here.
BCM temperature (K)	Look through the windows below the book shelf at crate ***CH01B06***. This information is in the uppermost panel. Record the temperature controller values (PV, PS) and the

	thermocouple feedback value.

Half wave plate in/out	Go to ***Hall A General Tools***. Find ***Spin*** and then ***Parity Controls***. Look at ***Insertable Waveplate***
Wien angle	Go to ***Hall A General Tools***. Find ***Spin*** and then ***Spin Controls***. Look at the bottom of the screen for ***HwienAngle***.

Target/Loop	On the target computer, find all the labels marked ***Target*** and write down what information is given.
Target temperature (K)	Look directly below the ***Target*** label and you will see the target temperature in kelvins. Do this for each loop.
Target pressure (psi)	Look directly below the temperature information for the target in each loop and you will find the pressure information in psi.

DVCS Calorimeter HV on?	Open the DVCS Calorimeter HV and look at the middle box between the ***on*** and ***off*** buttons.
Max. DVCS Calorimeter anode currents (mA)	The anode currents are posted in the beginning and end of run in the halog. Write down the largest value here.
DVCS Cosmic paddles HV on?	In the DVCS Calorimeter ***HVGUI***, The cosmic paddles are ***L7.4***, ***L7.5***, ***L7.10*** and ***L7.11***. Read the ***measured*** values.

Argon pressure (psi)	Go to the ***Hall A General Tools*** and find ***Gas Shed***
Ethane pressure (psi)	Go to the ***Hall A General Tools*** and find ***Gas Shed***
CO2 pressure (psi)	Go to the ***Hall A General Tools*** and find ***Gas Shed***

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Left arm angle (deg)	Look at the ***left screen*** in the crate ***CH01A06***. Check for the number at the bottom of the screen.
Left arm momentum (GeV)	Go to the ***Hall A General Tools*** and find ***Left*** and then ***P0 Set***
Left arm collimator	Go to the ***Hall A General Tools*** and find ***Collimators***.
Left arm cryo flow level OK? Yes/no He>60%, N>25%	Go to the ***Hall A General Tools*** and find ***Left*** and then go to ***Helium***. Look in the top box which is marked ***Left Spectrometer***.
Left arm NMR OK? Yes/no	Check the upper of the two scopes (labelled ***Left***) in the ***CH01A02*** crate.
Left arm Q1 current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then Q1.
Left arm Q2 current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then Q2.
Left arm D current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then D.
Left arm Q3 current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then Q3.
Left s0/s2m HV on?	Open the ***HVGUI*** and go to ***map***. Select ***s0*** and ***s2*** if they are not already present. When they are open, you should see a set of grey boxes labelled ***S0:Channel Status*** and ***S2:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green object () inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green object inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?

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Left Cerenkov HV on?	Open the ***HVGUI*** for the left arm and go to ***map***. Select ***Cerenkov*** if it is not already present. When it is open, you should see a set of grey boxes labelled ***Cerenkov:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green button inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green button inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?
Left Pion rejector HV on?	Open the ***HVGUI*** for the left arm and go to ***map***. Select ***PRL1*** and ***PRL2*** if thay are not already present. When it is open, you should see a set of grey boxes labelled ***PRL1:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green button inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green button inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?

Left VDC gas flow (top/bottom)	Go to the ***Hall A General Tools*** and find ***Gas Flow***. Look in the bottom region and find ***T_VDC*** for top VDC gas flow and ***B_VDC***

Left Dead time (%)	Check the ***LHRS Dead time***

	monitor on the DAQ computer.

Right arm angle (deg)	Look at the ***right screen*** in the crate ***CH01A06***. Check for the number at the bottom of the screen.
Right arm momentum (GeV)	Go to the ***Hall A General Tools*** and find ***Right*** and then ***P0 Set***
Right arm collimator	Go to the ***Hall A General Tools*** and find ***Collimators***. Select the light blue box. A window will open. At the very bottom of the window you will see 3 values for open, 6 msr and sieve. Record all 3 numbers.
Right arm cryo flow level OK? Yes/no He>60%, N>25%	Go to the ***Hall A General Tools*** and find ***Right*** and then go to ***Helium***. Look in the bottom box which is marked ***Right Spectrometer***.
Right arm NMR OK? Yes/no	Check the lower of the two scopes (labelled ***Right***) in the ***CH01A02*** crate.
Right arm Q1 current (A) (Not functional)	Go to ***Hall A General Tools***. Find ***Right*** and then Q1.
Right arm Q2 current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then Q2.
Right arm D current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then D.
Right arm Q3 current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then Q3.
Right s0/s2m HV on?	Open the right ***HVGUI*** and go to ***map***. Select ***s0*** and ***s2*** if they are not already present. When they are open, you should see a set of grey boxes labelled ***S0:Channel Status*** and ***S2:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green object () inside. If this is the case for

	all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green object inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?
Right Cerenkov HV on?	Open the ***HVGUI*** for the right arm and go to ***map***. Select ***Cerenkov*** if it is not already present. When it is open, you should see a set of grey boxes labelled ***Cerenkov:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green button inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green button inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?
Right Pion rejector HV on?	Open the ***HVGUI*** for the right arm and go to ***map***. Select ***PRL1*** and ***PRL2*** if thay are not already present. When it is open, you should see a set of grey boxes labelled ***PRL1:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green button inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green button inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?

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Right VDC gas flow (top/bottom)	Go to the ***Hall A General Tools*** and find ***Gas Flow***. Look in the top region and find ***T_VDC*** for top VDC gas flow and ***B_VDC***
Right VDC HV on (top/bottom)?(y/n)	Open the ***HVGUI*** for the right arm and go to ***map***. Select ***VDC*** if it is not already present. When it is open, you should see a set of grey boxes labelled ***VDC:Channel Status***. There will be 3 columns. In the last two columns (counting from the left), check that all boxes have a green button inside. If this is the case for all channels, then the answer to this question is **yes**. If otherwise (i.e., at least one channel does not have a green button inside), then put **no** and write a short note with the following questions in mind: Are all channels off or is it that some channels are off?

Right Dead time (%)	Check the ***RHRS Dead time monitor*** on the DAQ computer.