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?**
OPS Menu (Do this 1st, or check that all the menus described here are displayed)	• Run ***NewTools*** in a terminal on the EPICS computer. A small box which says ***OPS Menu*** is displayed. From here, you will open ***Hall A General Tools***. To do this, select ***EDM(HLA)***. Then, select ***JTABS (HLA)***. You will then see a menu (with tabs: Hall A, Operations, System Expert). From this select ***Hall A*** and then ***Tools Display***. • Another important menu is the ***JTABS*** menu. You get this from the ***OPS Menu***. When you select ***JTABS***, you will see a menu (with tabs: Operations, Injector, System Expert, etc).
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)	From the ***JTABS (HLA)*** menu, select ***Hall A*** and then select ***BCM***. Finally, select ***Current Monitor***.
Raster on? Yes/No	Look through the window beneath the bookshelf and check the scope on ***CH01B05***. If the raster is on, there should be a box on the screen. Otherwise, the raster is off.
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)	*See halog 3304885 for instructions.*

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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.
	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, SV) and the thermocouple feedback value.

Half wave plate in/out	Go to ***JTABS*** menu and find ***Injector***. Find ***Parity*** and then ***Parity Controls***. Look at ***Insertable Waveplate***
Wien angle	Go to ***JTABS*** menu and find ***Injector***. 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 (go to https://hallaweb.jlab.org/wiki/index.php/How_to_HRS_/_DVCS#DVCS_:_Hi

	gh_Voltage_controls for instructions to do this) 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***

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 momentum regulator on (Q1,Q2,D,Q3)?	On the ***Hall A General Tools***, find the ***Left HRS*** section. Then, find ***p0 set*** and select the green box to the right of ***GeV/c***.
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 locked? Yes/no	Check the upper of the two scopes (labelled ***Left***) in the ***CH01A02*** crate. If you see triangle waves, then NMR is locked. Otherwise, it is not locked.
Left arm Q1 current (A)	Go to ***Hall A General Tools***. Find

	Left and then Q1. Look for column I(A).
Left arm Q2 current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then Q2. Look for column I(A).
Left arm D current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then D. Look for column I(A).
Left arm Q3 current (A)	Go to ***Hall A General Tools***. Find ***Left*** and then Q3. Look for column I(A).
Left s0/s2mHV on?	Open the ***HVGUI*** (check how to do this by visiting https://hallaweb.jlab.org/wiki/index.php/How_to_HRS_/_DVCS#DVCS_:_High_Voltage_controls) 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 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 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?
Left Cerenkov HV on?	Open the ***HVGUI*** (check how to do this by visiting https://hallaweb.jlab.org/wiki/index.php/How_to_HRS_/_DVCS#DVCS_:_High_Voltage_controls) 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 (%)-scalers	Check the ***LHRS Dead time monitor*** on the DAQ computer. To do this, time ***datamon*** on the adaq machine. Then, type ***datamonL***.
EDTM	Log into dvcs@intelha3. Type the following in the terminal: ps aux | grep -i edtm. If you see something

	like: root 7109 100 0.0 1984 588 pts/4 R 11:16 4:21 /root/edtm/flexioctl edtm ..., then the EDTM is running.

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 momentum regulator on (Q1,Q2,D,Q3)?	On the ***Hall A General Tools***, find the ***Left HRS*** section. Then, find ***p0 set*** and select the green box to the right of ***GeV/c***.
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 locked? Yes/no	Check the lower of the two scopes (labelled ***Right***) in the ***CH01A02*** crate. If you see triangle waves, then NMR is locked. Otherwise, it is not locked.
Right arm Q1 current (A) (Not functional)	Go to ***Hall A General Tools***. Find ***Right*** and then Q1. Look for column I(A).
Right arm Q2 current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then Q2. Look for column I(A).
Right arm D current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then D. Look for column I(A).
Right arm Q3 current (A)	Go to ***Hall A General Tools***. Find ***Right*** and then Q3. Look for column I(A).

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Right s0/s2m (RHRS_s0/RHRS_s2m) HV on?	Open the right ***HVGUI*** (check how to do this by visiting https://hallaweb.jlab.org/wiki/index.php/How_to_HRS_/_DVCS#DVCS_:_High_Voltage_controls) and go to ***map***. Select ***RHRS_s0*** and ***RHRS_s2m*** if they are not already present. When they are open, you should see a set of grey boxes labelled ***RHRS_s0:Channel Status*** and ***RHRS_S2: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 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 (RHRS_gc) 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 ***RHRS_gc: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?
	Open the ***HVGUI*** for the right arm and go to ***map***. Select ***SH*** and ***PS*** if they are not already present. When it is open, you should see a set of

Right Pion rejector HV on?	grey boxes labelled ***SH:Channel Status*** and ***PS: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 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. To do this, time ***datamon*** on the adaq machine. Then, type ***datamonR***.
EDTM	Log into dvcs@intelha3. Type the following in the terminal: ps aux |

	grep -i edtm. If you see something like root 7109 100 0.0 1984 588 pts/4 R 11:16 4:21 /root/edtm/flexioctl edtm ..., then the EDTM is running.