Jefferson Lab Alignment Group

Data Transmittal

TO: R. Michaels, J. LeRose		**DATE:** 11 Nov 2009
FROM: Kelly Tremblay	**Checked:** (cjc)	**# :** A1249

DETAILS: data: aalign\electron&sh\2009\E110309a & aalign\hadron\2009\H110409a

Below are the results from the survey of the left and right spectrometers, superharps, cavity bpms and the calorimeter carried out on November 3rd and 4th, 2009. This survey work is in support of the PV DIS experiment in Hall A. The spectrometer data is based upon the standard alignment group pointing surveys. The values for the superharps and cavity bpms represent the difference in millimeters from the ideal position of each fiducial. A positive X value is to the beam left, a positive Y is too high.

Left Spectrometer: E110309A

The central ray of the spectrometer is at -12.895 degrees.
It is missing the defined target center by 1.22 mm upstream, and -0.20 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at -12.903 degrees.
*.9PR: 0.128 *.3DD: 1.42

Right Spectrometer: H110409A

The central ray of the spectrometer is at 20.022 degrees.
It is missing the defined target center by 3.10 mm downstream, and 0.73 mm vertically (positive = up).

If the offset is corrected by secondary alignment, the spectrometer will be at 20.001 degrees.
*.9PR: 0.137 *.3DD: 1.34

Superharps:

Fiducial	dX (mm)	dY (mm)
SH1H01A	0.28	0.06
SH1H01B	0.32	0.05
SH1H01C	0.36	0.09
SH1H02A	-0.30	-0.06
SH1H02B	-0.25	-0.09
SH1H02C	-0.26	-0.03

Cavity BPM's:

Fiducial	dX (mm)	dY (mm)
BCM1H1B	0.31	-0.23
BCM1H1C	0.38	-0.11
BCM1H2D	0.10	-0.24
BCM1H2A	-0.39	-0.26

Calorimeter:

Component	dZ (mm)	dX (mm)	dY (mm)	Yaw (deg)	Pitch(deg)	Roll (deg)
IFY1H04	-0.38	-0.06	-0.14	142.511	-0.002	-0.049